

Volume 75 Number 10
October 2007

Amateur Radio

The magazine for **AUSTRALIAN** radio amateurs



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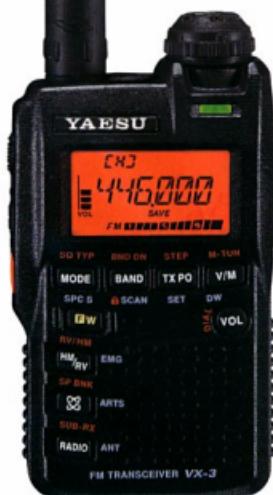


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Amateur Radio

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Our Cover this month

Jamboree On The Air and Jamboree On The Internet continue to grow in popularity. As Scouts celebrate 100 years of existence, JOTA totes up fifty. Enjoying their participation in 2006 JOTA are (left to right) Scouts Rachael Giulieri, Matthew Hutcheon, Amy Gordon and Michael Caldwell. See more stories on pages 21 and 22. Photo: Robert Broomhead VK3KRB

Contributions to Amateur Radio

Amateur Radio is a forum for WIA members' amateur radio experiments, experiences opinions and news. Manuscripts with drawings and/or photos are always welcome and will be considered for publication. Articles on disc or email are especially welcome. The WIA cannot be responsible for loss or damage to any material. A pamphlet, 'How to write for Amateur Radio' is available from the National Office on receipt of a stamped self-addressed envelope.

Back Issues

Back issues are available directly from the WIA National Office (until stocks are exhausted), at \$4.00 each (including postage within Australia) to members.

Photostat copies

When back issues are no longer available, photocopies of articles are available to members at \$2.50 each (plus an additional \$2 for each additional issue in which the article appears).

Disclaimer

The opinions expressed in this publication do not necessarily reflect the official view of the WIA and the WIA cannot be held responsible for incorrect information published.

Amateur Radio Service

A radiocommunication service for the purpose of self-training, intercommunication and technical investigation carried out by amateurs; that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest.

Wireless Institute of Australia

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Member of the

International Amateur Radio Union

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Editorial Comment

Peter Freeman VK3KAI

Anniversaries

The Space Age commenced 50 years ago. In October 1957, the USSR launched Sputnik, the first Earth-orbiting satellite. In this issue, Gerry Wild VK6GW gives us a brief report on receiving the "beep-beep" signal from the satellite, together with images of his Russian QSL card. Without the Space Race, one wonders if our technology would have developed as quickly as it has over the past 50 years.

2007 marks two significant milestones for the Scout movement: 100 years since it was founded by Baden-Powell and, this month, 50 years of Jamboree on the Air (JOTA). Over the years, many amateurs will have assisted with JOTA in some way. Some will have participated as Scouts or Guides.

The JOTA event has been expanded in recent years to include JOTI – Jamboree on the Internet. I believe that we should not view JOTI as a challenger, rather as another medium that complements amateur radio activity – after all, many amateurs already use the Internet to enhance their radio activities. The challenge for us all is to expose Scouts and Guides to amateur radio. At the least, their engagement might see them sufficiently interested to undertake the tasks required to earn another "badge". Some may even become interested enough in the hobby to consider taking out a licence.

In this issue, we have two reports from the Scouts Australia JOTA/JOTI coordinator, Bob Bristow VK6POP. One reports on the activities in Perth associated with the 100th anniversary celebrations in early August. The other gives us a brief outline of the history of JOTA.

I am aware that many amateurs will be busy preparing for the JOTA weekend – 50 hours duration planned for this year to celebrate 50 years. Surely some amateurs will be sending in reports of their JOTA/JOTI activities? Given our production deadlines, any such reports are likely to appear in the December issue.

A small number of reports have been received on the International Lighthouse/Lightship Weekend. It is anticipated that these reports will be published in

the November issue, whilst some brief news is mentioned in some of the news items this month.

Preparations continue

Whilst some are preparing for JOTA, others are thinking about one or more of the upcoming contests. As the days grow longer and warmer for the southern states, November sees the first of the Field Day contests in VK – the Spring VHF/UHF Field Day. Check out the Rules elsewhere in this issue – there are some changes other than just the dates.

More importantly for the future of the hobby, many amateurs from around the world are preparing for the World Radio Conference (WRC-07) to be held in Geneva. Whilst the potential outcomes may not seem to be significant to many, it is important that we have a presence to at least preserve our current frequency allocations. As we have reported earlier this year, amateur radio in general is represented by the IARU. Many nations, including Australia, have been willing to include an amateur in their formal delegation, giving us opportunities for expressing our views in a more powerful manner. A proportion of the WIA membership fee contributes to the expenses involved in participating in these important forums. If we make any gains in privileges internationally, it will be as a result of these representations.

Further refinements of the WIA structure

October 1 sees the commencement of the new WIA state and territory Advisory Committees. If you are unsure of the membership for your area, see the WIA News column in the September issue of AR or the WIA website.

For Clubs, it is important that you have considered the new training and assessment structure, as Invigilators are about to be removed. Make sure that all your appropriate members have registered for the new system with Assessors and Learning Organisers. Again, details can be found on the WIA website.

73 Peter VK3KAI

ar

Emergency Communications

The Wireless Institute of Australia (WIA), its members and Australian radio amateurs in general, have a long history of providing disaster communications to the community, and Australian governments at State and Federal level, through the operation of the Wireless Institute Civil Emergency Network (WICEN).

WICEN has evolved differently in states and regions in response to the often unique needs of the emergency services in those regions. The interest of amateurs and supported organisations has ebbed and flowed over the years. However everywhere there has been a core of dedicated WICEN operators who have kept the capabilities of Amateur Radio to the fore with the authorities in their respective regions.

It may surprise some readers that, although it carries its name, WICEN has, in the past, not always developed as a close knit part of the WIA. The structure and organisation of WICEN varies widely throughout Australia from incorporated entities to loose groupings of willing radio amateurs actively preparing themselves and their equipment to support their community and others should the need arise. The relationship of WICEN organisations to the WIA also varies as does the relationship of WICEN to State emergency service authorities.

The value of WICEN was highlighted recently during the Victorian bush fires when radio amateurs, pre-trained in operating emergency services communications equipment, were called in to relieve exhausted staff. Another major activity of WICEN is to provide support for community events such as canoe marathons, car rallies, etc. These events often require setting up communications links for extended periods in remote areas and often under difficult conditions. These community service aspects of WICEN are becoming an increasingly important activity.

Quite often, radio amateurs have provided invaluable assistance in times of disaster simply because they happened to be in the wrong place at the right time, or happen to hear something when listening around on the bands. Cyclone Katrina and the Asian tsunami have demonstrated to the world just how valuable on-the-spot radio amateurs are in emergency situations: not just as operators but with the skills to establish

and maintain communications. These radio amateurs have often acted on their own initiative without the support of a national organisation such as WICEN.

WICEN also conducts specific message handling and communications planning and evaluation exercises to continually improve the communications skills of amateur radio operators in adverse real or simulated conditions. These training activities frequently include Government authorities such as the Police and State Emergency Service in each state.

The tsunami events in our region and hurricane Katrina have rekindled interest in emergency communications among radio amateurs and government authorities. In Australia, this has naturally been focused on WICEN as the visible arm of Amateur Radio in the community.

Looking objectively, some trends are apparent in the recent activities of WICEN, and of radio amateur emergency communications in general. Firstly, emergency services communications systems are becoming more resilient and complex, and recently WICEN were asked to supply trained operators only, rather than operators

and amateur radio equipment. Secondly, community service (non-emergency) activities are becoming more common and may require supply of operators and their equipment for extended periods in remote areas with little support. Thirdly, there is a growing incidence in our region where radio amateurs find themselves 'Johnny-on-the-spot', providing first-line first-few-hours communications in a disaster until emergency services get themselves organised.

Both the WIA and the IARU have been observing these trends and propose some new initiatives. Firstly, we believe our emergency communications capability should be extended beyond the regional

attributes of WICEN, to cover the entire area of IARU Region 3.

In this regard the WIA has established a new organisation called the National Network of Emergency Communications (WIANNEC) which will eventually appreciate the wide range of amateur radio contributions to emergency communications of importance to Australia. WICEN will continue to focus on regional VK demands, as it always has, while other elements of WIANNEC will prepare and concentrate on disaster communications with other countries in our region. The formation of WIANNEC will eventually require a more formal relationship between the WIA and existing WICEN organisations at State and regional levels so that all amateur radio emergency services can operate in an integrated and coherent way in the eyes of government and the community.

Secondly, we believe there is a need to establish a process to improve the emergency communications preparedness, in a simple way and independent of any formal organisation, of all Australian radio amateurs so they

may be better equipped to respond to an emergency situation. This may include an emergency manual for all radio amateurs with tips on how to disaster-proof your station.

The time is right to look at how radio amateurs provide communications services to the community and how we can best meet evolving community needs.

W I C E N a n d
Australian radio amateurs indeed have a long tradition of serving the community in times of need. For all those involved in WICEN and to all those who have provided their time and equipment to aid others, our heart-felt thanks. We believe (as does the IARU) the time is now right to take a look at how we radio amateurs provide communications services to the community and how we can best structure ourselves to meet evolving community needs.

WICEN activation VK4 North Coast Region

The VK4 WICEN North Coast Region was activated after major flooding occurred following 300 – 800 mm rainfall in 24 hours. The areas affected were Caloundra, Maroochy, Noosa and Cooloola.

Seventeen Sunshine Coast Amateur Radio Club and WICEN operators were involved on 24 August, while members of the Hervey Bay ARC and Maryborough ARC were on standby.

A debrief session was held at the SCARC clubrooms on Wednesday 29 August 2007 with most of the activated operational personnel in attendance.

The WICEN Area Co-ordinator reported the HQ had access to multiple radio frequencies, internet, landline, mobile phone etc. all of which were used constantly during the activation period to coordinate personnel and track the Emergency Management Queensland (EMQ) Area Director. The WICEN communications van was positioned at a location previously identified as being suitable for the type of activation encountered: Activity included monitoring Amateur Radio, SES, QPS and LDMG frequencies and message handling. Further modifications to improve the van communications capability were identified.

At the Tewantin SES HQ, the WICEN operators were to the fore with their skills needed to support the operation and maintenance of local radio equipment. The operation identified areas where the communications capability of the facility could be improved. Similarly, at the Maroochy SES HQ, the WICEN operator reported areas for improvement as at Tewantin, although the location allowed for effective use of amateur handhelds for communications with the WICEN Van and the WICEN Area Coordinator.

The EMQ HQ in Caloundra was undergoing relocation and renovation, so the WICEN operator had a few problems initially setting up effective communications as the radio communications equipment had been removed as part of the renovations. When the HQ is again fully operational,

that is where the WICEN Area Co-ordinator will be located.

The operation highlighted the need for accelerated training of WICEN personnel in many areas, including the need for familiarization of WICEN personnel with SES radio facilities and procedures. WICEN operators noted that the road and weather conditions required due diligence to attend call out locations and road closure information was essential for the safe deployment of WICEN personnel. As a result, Road Closure information was broadcast to WICEN personnel on the hour and was later requested by and faxed to Maroochy SES.

Standards Australia Committees – Why we need to be there

The WIA has long been involved in various Standards Australia committees, with good reason. As radio amateurs, our operations and our equipment must comply with a variety of Australian and international Standards for electromagnetic emission and immunity, RF exposure levels, electrical safety, and many others. Australian radiocommunications and telecommunications regulation is formulated and administered by ACMA using Standards wherever possible.

One of the most important set of Standards for us is the ElectroMagnetic Compatibility Framework. EMC standards place limits on unintentional emissions over 9 kHz from electrical and electronic equipment. They help protect us against interference from domestic appliances, information technology equipment, switch-mode power supplies, lighting and so on.

Standards called up in regulation are 'mandated' and penalties exist if not complied with. Safety Standards and those we are familiar with in radiocommunications and telecommunications are examples of mandated Standards. Most Standards are not mandated, simply forming a guide to "best practice" and important as a guide to consumers and business, and ultimately a marketing tool.

In order to promote international

harmonisation and advancement of trade, Standards Australia is required to adopt international Standards wherever possible, with modification for Australian conditions when necessary. The international body responsible for creating standards for unintentional electromagnetic emission is the Comité International Spécial des Perturbations Radioélectrotechnique (International Special Committee on Radio Interference, IEC) otherwise known as CISPR. (Other organizations with acronyms such as ISC, EN, ANSI, BSI, DIN, NSAI, and IEEE produce standards which may also be used by Standards Australia).

Since many Australian Standards are based on international Standards, it is only natural that Australia would want to take part in the formation of those international Standards. This is done through Standards Australia's membership of international organisations, such as CISPR.

Standards Australia is a fairly small core organization administering a number of volunteer expert committees. Many people believe that a published Standard represents "world's best practice", but this is not always the case. Standards development involves stakeholder representatives from government, industry and consumer advocacy groups, all of which push (to varying degrees) their particular point of view and self interest. Ultimately, a finished Standard represents a consensus position. This is why it is so important for the WIA to be involved – if not, the privileges and protections we now enjoy could be eroded.

It is also a lot more than simply attending meetings. The WIA is very active on a BPL working group formed to make recommendations for changing the CISPR 22 Standard to take into account BPL technology. CISPR 22 specifies the limits and measuring methods for radiated emission (through the air) and conducted emission (through the connecting cables) for information technology equipment, including BPL equipment. Recently we have taken hundreds of measurements of BPL emissions in real world situations and the BPL Working Group submitted a major report to the international meeting of CISPR-22 held in Sydney last month.

We are sure members will agree that Standards work is a vital aspect of the WIA's activity. Much of that work is confidential and cannot be publicly released. To have influence in these forums, we must abide by their rules and respect their confidentiality requirements. The WIA's work on several Standards committees is not often publicised, but Standards meetings are held every month or so and are very time consuming for those involved.

Thanks to our long suffering and unsung representatives – David Wardlaw VK3ADW, John Bishop VK2ZOI, Gilbert Hughes VK1GH and Phil Wait VK2DKN.

WIA Board appoints Ray Crawford VK4HDX as VK4 QSL Manager

The WIA Board has approved the appointment of Ray Crawford VK4HDX as VK4 QSL Bureau manager. The Board acted on the recommendation of the Queensland Advisory Committee, the National QSL Coordinator Neil Penfold VK6NE and the immediate past VK4 QSL Manager Eddie de Young VK4AN.

Ray Crawford VK4HDX is a member of the WIA, resides at 53 Moore Street Kingaroy QLD 4610 phone (07) 4163 6940. Email: hamdixer59@bigpond.com. Ray is an active DXer and was active in NZART before coming to Australia.

His home address is the address which will be circulated as the point for delivery of VK4 Inwards QSL Cards from overseas.

For outward Bureau Cards, that is cards being sent from WIA members to overseas contacts, members should send their cards sorted in DXCC country order to the WIA Outwards QSL Bureau addressed as follows:

WIA Outwards QSL Bureau
P.O. Box 3073
Teralba
NSW 2284

The present VK4 QSL manager Eddie de Young VK4AN has resigned due to other commitments. Eddie brought a strong interest to the concepts of managing a QSL Bureau and was always ready to suggest ways by which the system could be improved.

WIA Board accepts recommendations for 2007 WIA Grants

The WIA Board has accepted all recommendations from the 2007 grants committee for the award of grants to a number of Clubs. A total of \$5000 is allocated to six projects. Three other project proposals were not supported on this occasion.

The effort of clubs putting forward applications is greatly appreciated by the WIA and it is appreciated that there will be disappointment that not all applications could be satisfied. The procedure of assessment by a committee working independent of the Board or its officers is seen as the best way of ensuring a fair assessment.

The grant committee commented on the need to review the purpose and emphasis of the grant scheme in future years. The WIA Board has decided to seek the advice of WIA members on these matters and a notice requesting member comment will be issued shortly.

The Board thanks all applicants for the effort made in putting forward proposals for the 2007 round of grants.

The project proposals reviewed by the grant committee and decisions made as a result are as follows:

Projects recommended for grant assistance

Twin City Radio & Electronics Club (Inc)

(WIA Membership 30/49)

Project Description: Refurbishment of VK2RAY 6 metre repeater in the Albury-Wodonga area. \$700 had already been spent with a total project cost of \$2135. A grant of \$700 was sought.

Decision: provide a grant of \$700.

Twin City Radio & Electronics Club (Inc)

(WIA Membership 30/49)

Project Description: Purchase of a computer to replace one loaned by a member for training. A grant of \$700 was sought.

Decision: provide a grant of \$700.

Sunshine Coast Amateur Radio Club Inc

(WIA Membership 44/99)

Project Description: Purchase of a commercial two metre diplexer to improve coverage of its 146.850 MHz repeater for emergency and general communications. A grant of \$2000 was sought, with the club contributing the balance of between \$1750 and \$2000 to complete the project.

Decision: Provide a grant of \$1000 when the Club notifies the WIA that it has raised the remaining funds required.

Gold Coast Amateur Radio Society Inc

(WIA Membership 40/82)

Project Description: Purchase and installation of three repeaters, cavity filters for two sites and controller equipment and antennas. A grant of \$4000 was sought with the club contributing the balance of \$10000 to complete the project.

Decision: Provide a grant of \$700 when the Club notifies the WIA that it has raised the remaining funds required.

Eastern & Mountain District Radio Club

(WIA Membership 151/223)

Project Description: A disaster and education preparedness kit, including a generator. A grant of \$1000 was sought to assist this project, with the club contributing \$1000 to the project.

Decision: Provide a grant of \$1000 available when the Club notifies the WIA that it has raised the remaining funds required.

Sunraysia Radio Group Inc

(WIA Membership 14/28)

Project Description: Re-establish the Ouyen repeater. A grant of \$1500 was sought to purchase antenna, coax, connectors and diplexer with the club contributing the remaining \$3843 to complete the project.

Decision: Provide a grant of \$900 when the Club notifies the WIA that it has raised the remaining funds required.

continued next page

WIA News

Projects ranked below those projects recommended for grant assistance

Redcliffe & Districts Radio Club Inc

(WIA Membership 34/63)

Project Description: Disabled Toilet and Wash Facility in the Club Building. The total cost of this project is \$15,600. The Redcliffe City Council is sponsoring half of this cost. \$2,000 was sought to assist with the remaining costs for the project.

Ipswich & District Radio Club

(WIA Membership 7/27)

Project Description: Replacement of the ageing and intermittently faulty 2 metre WICEN repeater VK4RWM. A grant of \$2180.75 was sought.

Fishers Ghost Amateur Radio Club

(WIA Membership 6/12)

Project Description: Assistance is sought for extensions to the Amateur Radio Building at the Cataract Scout Park situated halfway between Appin and Wollongong. Nominal costs of the proposal were recognised as outside of the level of the Grants Scheme.

Future Directions of the WIA Grant scheme – request for member comment

The 2007 Grant committee made a number of remarks about the future directions of WIA grant schemes and the WIA Board believes that these are matters on which the comments of members should be sought.

Comments on the following remarks provided by the 2007 Grant Committee should be forwarded to the Secretary WIA no later than 1 December 2007. Email comments to secretary@wia.org.au or by post to the Secretary WIA at PO Box 2175 Caulfield Junction Vic 3161. Subject head emails or mark envelopes "Future Direction of WIA Grant Scheme".

Committee Remarks

The committee felt that the scheme is not working very well. Innovation is not

being stimulated. No applications were received for digital communications, APRS or any other newer technology or innovative projects. This is somewhat disappointing. It is suggested that the WIA promote innovation in special interest areas to direct clubs to focus on new areas.

Many clubs have an overwhelming focus on operating and maintaining a repeater communications system, often involving repeaters in multiple bands. Many grants request funds to maintain, repair, or re-establish repeaters. Most of the technology involved is well established.

Few grant applications focussed on promotion of amateur radio or the WIA. Most promotion was incidental to the project.

In particular, incentives to develop on-going training programs, or to plan to exploit forthcoming publicity opportunities, are not best delivered through annual competitive grants but as expression of a policy developed by the Board with funding set aside for these areas.

The grants scheme requires a reporting mechanism. It is suggested that the procedures similar to government grants include the following requirements:

- Detailed estimate for the project including quotes for larger items.
- Following the grant, feedback on progress and notification when the project is complete.
- Notification of funds spent on the project.
- Confirmation of the achievement of the objectives.

Each of the above takes time to manage, and we should not expect a fully professional project proposal.

IARU Region 3 active

IARU Region 3, the IARU organisation for Region 3, has been very busy lately.

Directors Peter Lake ZL2AZ and Shizuo Endo JE1MUI represented IARU Region 3 at the last Asia Pacific Telecommunity (APT) Preparatory Group meeting before WRC-07, held in Busan, South Korea from 16 to 21 July 2007. They had also represented the

amateur service at the earlier meeting in Bangkok in January.

The proposal that the amateur service be allocated a secondary allocation from 135.7 to 137.8 kHz with a 1 watt EIRP power limit was supported, but the proposals that allocations be made to the amateur service to achieve a world wide exclusive band 7.0 to 7.3 MHz and a new secondary allocation around 5 MHz were not supported.

The IARU Region 3 Directors met in Tokyo over two and a half days from 22 to 24 August 2007, hosted by JARL. The Directors are Chairman Michael Owen VK3KI, Shizuo Endo JE1MUI, Peter Lake ZL2AZ, Gopal Madhavan VU2GMN and Joong-Geun Rhee HL1AQQ. In addition, IARU Vice President Tim Ellam VE6SH participated in the meeting.

The Directors have made recommendations to member societies in respect of WRC-07.

Among the many other matters discussed was the Monitoring System. It was agreed to take steps to make this important function more accessible and to continue to seek action against certain intruders.

The further development, particularly at an international level, of emergency communications was addressed. Many Region 3 countries still have national regulations prohibiting realistic practise sessions. Model regulatory provisions to except emergency communications and emergency communications practice from the general prohibition are being developed and distributed.

Following their meeting, the Directors attended the Tokyo Hamfair conducted by JARL.

RD results being processed

The RD results are being processed and the Contest Coordinator Peter Harding VK4OD advises that he hopes to complete the analysis this month (October) with distribution to follow and publication in the December AR (if all goes well, results may be available earlier).

continued on page 9

A RF quiet light using 1W LEDs

Dale Hughes, VK1DSH

Light emitting diodes are now available with light outputs which make them suitable for some lighting tasks that were previously the domain of fluorescent tubes or gas lamps. Low voltage fluorescent lamps are convenient, but can generate considerable radio frequency interference, and gas lamps are hot, fragile and noisy. During the recent Summer VHF Field Day, LED based lighting was tried as it generates no sound or radio frequency interference. The light worked exceptionally well providing a bright and pleasing illumination for the night's radio activity.

The light consists of three one watt white light emitting diodes, D1, D2 & D3 (DSE catalogue number Z 4245) mounted on a metal reflector that could be hung over the operating position. The LEDs are connected in series with a constant current source so that the light output stays reasonably constant with variations in battery voltage. The constant current source also ensures that the maximum current rating of the LEDs is not exceeded. Components Q1, R1, R2, D4 & D5 make up the constant current source. Refer to Figure 1 for the schematic diagram of the light source.

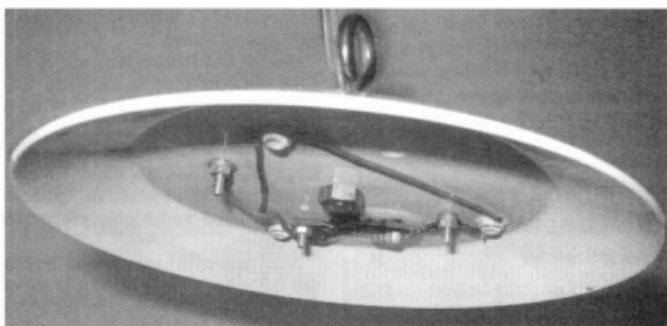


Photo 1 The Completed LED Light

A constant current source can be built in many ways and this design is probably the simplest. The current is set by the voltage on the base (V_b) and the resistance in the emitter circuit (R_e). The collector current, I_c , is given by:

$$I_c \sim I_e = \frac{V_b - V_{be}}{R_e}$$

Where V_{be} is the base-emitter voltage (typically 0.6 V to 0.7 V) and the base current is ignored as it is very small compared to I_e . The performance of the

circuit is plotted in Figure 2, and it can be seen that the current is relatively stable between 11 and 15.5 volts. Usable light output is obtained from approximately 9.5 volts, and full brightness from approximately 11 volts. Refer to Figure 2 for the current consumption versus battery voltage relationship.

Construction is straight forward and the layout can be changed to suit other applications. All the components are glued to a painted metal dish which acts as a reflector and heat sink; although very

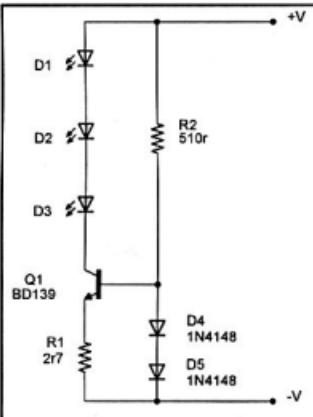


Figure 1: Schematic Diagram of the Light Source

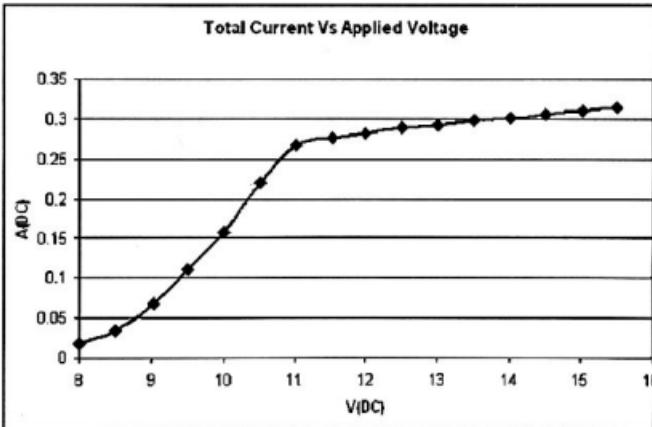


Figure 2: Current Consumption versus Battery Voltage

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Silent key

Allan Wright VK2BVL

Allan Wright VK2BVL of Orange, a long-term WIA member, passed away around midnight on Tuesday 26 June, 2007 in Royal Prince Alfred Hospital Sydney, aged 63, after a long and brave fight against cancer.

Orange and District Amateur Radio Club (ODARC), of which Allan was President when he died, was well represented at his funeral in Orange on Saturday 30 June, together with a very large crowd from his many spheres of interest in all of which he had been a much-liked and highly respected personality.

Allan grew up in Lawrence and Grafton and in the early 1960s began training in Sydney as a technician with the PMG - later known as Telecom Australia, then Telstra. He and Brenda married in 1964 and moved to Dorrigo. His interest in electronics led him into broadcasting; installing and maintaining ABC television transmitters around the country. In 1971 he was posted to Orange and became supervising technician for the ABC's transmitters over western NSW, based at Mt Canobolas.

Allan sometimes had ODARC members literally on the edges of their seats at club meetings, when describing essential antenna maintenance work on the 520 ft (160 m) ABC tower and the adventure of reaching the top, then stepping out onto the actual antenna elements!

In 1993 Allan accepted a senior management position with the same organisation in their Melbourne head office, with responsibilities now covering all of eastern Australia! In 2000 he retired and with Brenda returned to Orange.

Allan heard of a local position far

removed from electronics but which required many of the organisational and managerial skills he possessed. 'Wontama', the district's biggest aged care facility, required a 'Continuous Improvement Coordinator', for which he applied and was surprised to win. His honest approach, respect for everybody and his lovely manner soon also won lots more friends.

A devoted family man, Allan was involved with his children in horse-riding, polocrosse, soccer, Scouting, as well as all the usual activities in helping raise a family. He developed a passion for the collecting and repairing of antique clocks but still found time to enthusiastically take part in every amateur radio club event he could, like car trials, field days, meetings and other events, including the annual local co-ordination of 'Jamboree-on-the-Air'.

Brenda called him 'the ultimate peacemaker' and that applied in family matters, work-related incidents and in amateur radio club affairs. If ever a personality battle looked like brewing, Allan and his quiet, reasonable manner was always able to bring about a happy resolution.

There should be more people in the world like the late, loved and very much missed Allan Wright VK2BVL - Silent Key.

Submitted by Peter Carter VK2ETK
on behalf of ODARC.

A RF quiet light using 1W LEDs *continued from page 7*

little heat is generated during normal use. The glue used was a two part, epoxy resin. Note that the 'slug' on the rear of the LED needs to be electrically isolated, so if a painted surface is not used some other means of isolation must be used. Transistor Q1 is also bolted to the plate, diodes D3 and D4 are glued to the plate, adjacent to the transistor so that as the

plate warms up, the base voltage, V_b , is reduced due to the negative temperature coefficient of the diodes. This feedback helps keep the current constant under changing temperature conditions. An eye bolt in the centre of the light provides a convenient point to support the light.

Photo 1 shows the completed unit.



continued from page 6

Peter reports that the number of logs is slightly down on last year's total.

Roxby Downs Club blossoms

It is spring time and the Sturt's Desert Pea is blooming. Amateur radio is also blossoming in the arid land at Roxby Downs in South Australia.

Roxby Downs is a purpose-built town located about 560 km north of Adelaide. It is associated with the Olympic Dam mine – a massive multi ore mineral deposit of copper, uranium, gold and silver. It has a population of about 4000.

Michael Wright VK5ARD, who is resident at Roxby Downs, motivated and organised a dozen young potential amateurs from the area for the weekend of the 1st and 2nd of September.

Invite Ron Bertrand to do the training, and Fred Swainston for overall

guidance – how could you go wrong? Visiting Assessors from Adelaide were Peter VK5ZFW, Paul VK5PH, and Trevor VK5ATQ. Much hard work of training and assessing was balanced by celebrations, as it was a very successful weekend. To top it off, a new radio club was formed. Listen for calls from Roxby Downs and welcome new amateurs and a new club to the world of amateur radio.

Another success for the WIA training program initiatives.

The Clubs Scene

Ted Thrift VK2ARA

WIA Club Coordinator

It is always good to hear about a new club. The WIA welcomes the formation of a new club at Roxby Downs. Congratulations to Michael VK5ARD and best wishes for your new club.

The WIA website 'clubs page' is being revamped by Robert VK3KRB. It is at

the stage where we have an index list for each state and a downloadable file for each state. The update form is still available and best efforts will be made to input updates within a week.

The hot issue with clubs is: who is your Learning Organiser? If the file for your state and club only lists a group leader, or no name at all, that means that your club has not supplied a name to your WIA Club Coordinator Ted Thrift vk2ara@wia.org.au. To be nominated as a Learning Organiser, the person needs to be an assessor, or an accredited learning facilitator.

Any clubs or individuals requiring information about incorporation, affiliation, club records or liability insurance, contact me via email vk2ara@wia.org.au. What cannot be given directly will be referred to a suitable person and I will follow up personally.

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A simple CW audio filter

Peter Wathen VK3EPW.

While everyone with the dreaded microphone button in their hand insists CW is dead, I, like a lot of other amateurs, enjoy it.

My only radio at the moment is a home built, home designed transceiver that runs a massive ten watts and while I do use SSB on occasions, I find if I choose the correct band at the correct time CW opens the world up like SSB cannot. (If you are like me and have a hard time decoding accents, at times, then CW is also a winner).

So what is the problem?

It seems like CW, far from being dead, always has stations working very close to each other and while some commercial transceivers have narrow filters fitted, and others have them as an option, my transceiver is limited to a 2.3 kHz filter. (I listen to quite a few CW stations at once!).

At first I had the bright idea of making a variable twin T audio filter to notch out the offenders. The notch filter used two pots, one dual gang and one single gang and had a range from about 1 kHz to 2.4 kHz.

On an audio signal generator it worked well, very sharp and with a very deep notch. However when I put it on the radio the QRN and pink noise made it almost impossible to use.

Not one to give up, I thought OK I can put the filter in the op amplifier feed back circuit and dampen it with a resistor (to stop it from becoming an oscillator), changing it from a notch filter to a sharp band pass filter. So that is exactly what I did. I kept the pots at first and tailored the centre frequency to suit my ears and also used a pot as a feed back resistor to get the filter to a point where it is sharp but the ringing is acceptable.

The circuit is very simple. It uses two ICs as I have shown it here, but it worked so well, I left out the LM380, went all surface mount components and made it small enough to mount behind the filter switch which is now on the front panel of my transceiver.

It should be a nice little weekend project for builders among you.

The filter is very sharp, so don't leave out the slide switch. My transceiver is all PLL with no fine tuning, rather it has 50 Hz tuning steps and I find one step either side is off the filter peak.

If you are using a home brew receiver/transceiver with a wide, or no, IF filter or as one amateur I spoke to, a direct conversion receiver, this filter will improve your reception (assuming you don't already have a sharp AF filter).

If you like CW, try the filter - even commercial transceivers will benefit from a sharp audio filter.

A quick circuit description

Audio comes in to U1B via C1. U1B is a simple unity gain buffer. R3 and R4 were selected to give an overall unity gain to the circuit. U1C is the actual filter, and R6 provides the damping while the other resistors and capacitors tune the filter.

If you would like to change the frequency of the filter change the (R8/R9) and (R10/R11) values together (lowering their values increases the frequency). You will also need to use an audio signal generator to find the peak, then put a trimmer in to R7 position and adjust for best peak (At some point it will oscillate. Don't go there.).

R6 has an effect on the tuning of the filter, as well as the damping.

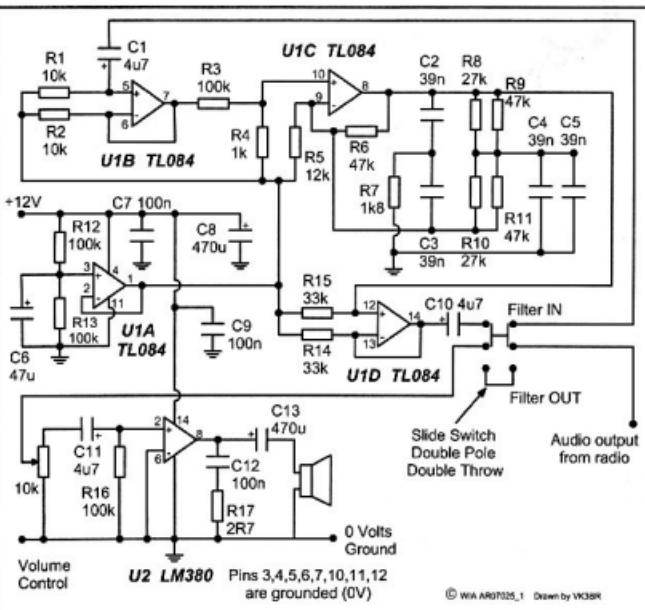
U1D is again a simple unity gain buffer amplifier.

U1A is used to provide a six volt rail for the op amplifiers as it all runs off a 12 Volt single rail supply.

Notes:

Values at the output of U1B were selected to give the overall filter approximately unity gain.

The circuit was originally built and tailored as shown to operate outside the radio. When it proved its value, it was put inside my homebrew transceiver (minus the LM380).



All resistors used were 1206 SMT. I find them much easier to use than through-hole components. You don't have to drill and just a 1 mm gap in the circuit track will do. However, through-hole carbon or metal film 1/8 or 1/4 W resistors can be used if desired.

Performance data measured with an audio generator and oscilloscope are as follows:

Filter Centre Frequency	526 Hz
6 dB Bandwidth	48 Hz
18 dB Bandwidth	243 Hz
6 dB points	500 Hz / 548 Hz
18 dB points	412 Hz / 655 Hz

The filter is very sharp and does have some slight ringing. However, the QRM and noise reduction are worth it.

The IN/OUT slide switch is a MUST.

All components are available from one or more of the following outlets:

RS Components, Farnell Components, Jaycar, Dick Smith

Component List

1 x TL084

1 x LM380 (14 pin)

Capacitors:

3 x 4u7 63 V Electrolytic/Tantalum

1 x 47 uF 25 V Electrolytic

2 x 470 uF 35 V Electrolytic

3 x 0.1 uF (1206 SMT) Ceramic/

Mono

4 x 0.039 uF MKT/Green Cap

Resistors:

1 x 2R7

1 x 1k0

1 x 1k8

2 x 10k0

1 x 12k0

2 x 27k0

2 x 33k0

2 x 47k0

4 x 100k0

1 x 10k Log Potentiometer

1 x blank PCB (Dick Smith)

1 x Dalo pen (Jaycar)

1 x container Ferric Chloride

1 x DPDT slide switch

A memorable eyeball

Ron Holmes VK5VH.

I had talked on air to Phil W1DBM several times in the 1970's. He lived in Haverhill, New Hampshire, USA. Apart from that, I knew nothing about him except that we were both particularly interested in designing and building our own antennas. On 20 metres, he was using a group of five verticals, so designed that they could be made to beam a signal in different directions. He told me he hoped to have the design published eventually.

When, in 1979, my XYL Shirley and I travelled to America to visit our eldest son, who was working in North Carolina, we drove with him up the east coast and through New Hampshire. I remembered Phil W1DBM. So we called at Haverhill. We drove round the town until we saw a group of five vertical antennas near a house on the outskirts of the pleasant little place.

I knocked on the door of an old two-storyed weatherboard building. I think they call it clapboard over there. We discovered later that it had been built in 1835 and that currently they were replacing the kitchen floor. A lady carrying a cat answered the door. I explained who I was and asked if 'Phil' lived there. He did. He was her husband. She told me he was up the back working on an antenna for his trailer (caravan). I crossed a paddock behind the house and found him walking towards me. He looked about 65 and wore bib and brace overalls over a flannel shirt. I placed him as an old farmer, particularly as the house was on several acres and included some fine vegetable plots.

As soon as I told him my call sign he greeted me warmly, called me 'Raarn', and invited us into the house. As I was about to introduce him to Shirley, plus my son and his wife, I realised I did not know his surname and asked for it. He told me it was Rand, or, as he pronounced it, 'Raarm'. We went inside; he cleared several of his wife's cats from the furniture and we sat down while Louise made a cup of coffee. While we were waiting he took me upstairs to his 'shack'.

I was very impressed with his radio gear, including a monstrous linear of uncertain age. Remembering that he had told me he hoped to publish his design of the five verticals, I asked if this had happened. It had and he showed it to me in an American magazine.

'Actually', he said, 'I've had a few things published over the years. I think the PMG in Australia used one of my books when you brought in Television'. He reached down a manual entitled 'TELEVISION INTERFERENCE' and handed it to me. I noticed on the cover that it was a product of the Remington Rand Laboratory of Advanced Research. He was the 'Rand' of 'Remington Rand' - one of the world's best known names in the electronic field at that time!

He said nothing about who he was. Neither did I. We went back downstairs and in the course of conversation over coffee it became evident that Phil was one of the leading electronics engineers of the world. He, with two associates, had designed the first video cameras on missiles for the military. He had designed early TV cameras for NBC. We mentioned how my son and his wife had recently sailed a 30 foot open boat from Florida to New York. It reminded him that he had designed the navigational equipment for 'Gretel', which had just won an America's Cup sailing race. It was not until later that I discovered that he was a major contributor to QST and CQ.

Amateur radio is an interesting world. I hoped I had not appeared too dumb on the occasions I had talked to Phil on air previously, when all I knew was that his name was Phil and that he shared my hobby. Incidentally, although I thought he looked about 65, I discovered that he had retired at 65 many years before and was closer to 80. Unfortunately, he is now a silent key, but one who made his mark on the world. It was a privilege to have that 'eyeball' and I will not forget it.

ar

ar

A precision sheet metal bender for around \$40

Jim Tregellas VK5JST

endsodds@internode.on.net

How often have you wanted a custom-made box for that special electronic project? If you've ever tried to fold a piece of aluminium in a vice using a couple of bits of angle iron, a lump of wood and a hammer, then you'll know there has to be a better method, because this is a great way to waste good material.

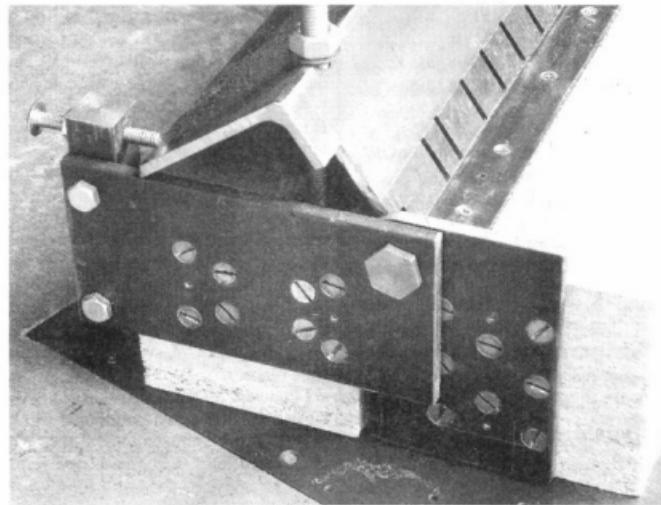
The better method is called a finger folder, and professional units cost well over \$2000. They are designed to fold 1.6 mm steel in widths of up to one metre, and for electronic hobbyist purposes, are complete over-kill. Almost every special purpose box you'll ever want has dimensions of less than 400 mm on any axis and can be made of either 0.8 or 1 mm aluminium. This folder addresses that need cheaply but very adequately.

Specifications

The folder design following provides the ability to fold U-shaped flanged panels with any width between 11 mm and 424 mm (see appendix). Beyond 424 mm, selected widths up to 480 mm can be handled, and edge flanges up to 12 mm are accommodated. For the two initial folds on either side of a panel, edge flanges up to 515 mm long can be made, and so the maximum size panel which can be formed with flanges is actually 480 x 515 mm. The design allows for bend angles from zero to just over 90 degrees. Most importantly, U-shaped chassis with edge flanges (the most common electronic enclosure) can be made. The bending comb in the top jaw is unique and until publication, was probably patentable. Because of the slot widths used and the inter slot spacing selected, the continuous width coverage offered above is provided without the need to move any fingers. Extensive tests have been done on 0.7 mm thick aluminium, and no bend imperfections will be seen where the material bridges the 4 mm wide slots.

Construction

When I examined the metal folder designs that were around, I found that they are all made of steel (usually angle iron) and without exception involve the skill of precision welding. The real



design problem that plagues the bender designer is the provision of robust hinges to take the enormous strains of bending, and of providing structural members which are sufficiently strong to resist significant bending. To complicate the issue further, the centre line of the hinge pins has to coincide exactly with the top of the joint between the front and rear bender jaws. This means specially fabricated hinges and some very nasty set-up problems while they are welded into position with a heavy duty arc welder – not for me- my arc welds are usually very dodgy!

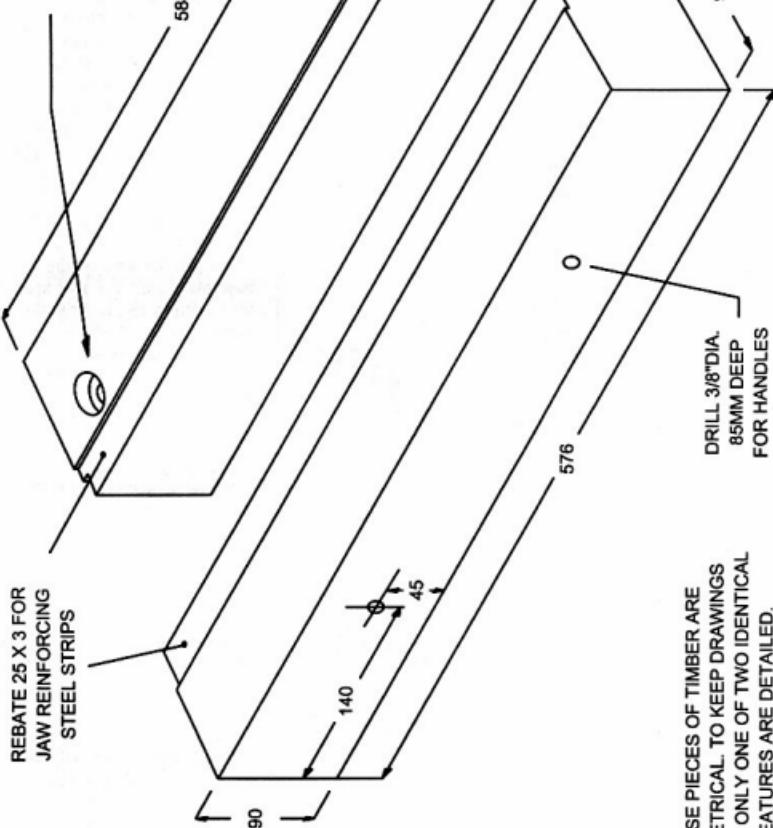
What I wanted was a design which the average home handyman could make with a few basic tools, and by visiting his local steel supplier where all the standard steel sections used could be obtained cut to length. The design which results uses chipboard (NOT MDF!) for the bender jaws, which are shaped using your Triton

saw bench. The hinges are very simply made from standard steel plate and attach to the end of these wooden pieces. So you will need a good bench drill press as well as some marking out tools, various twist drills, a spade bit, a 5/16" BSW full taper die and an angle grinder - but no welder.

The Drawings

You will discover that these are a mixture of metric and imperial dimensions. No apologies are made for this, because I have based this project around items that are easy to obtain, and a visit to your local hardware store will confirm this. It is also worth noting that to avoid using screws of different lengths; the positions of hinge screws have been changed. Those with a keen eye for detail will note that the drawings differ from the photos of the prototype bender in this regard.

FOR HOLE PLACEMENT REFER TO
ARTICLE TEXT. DRILL 1/4" DIA.
INITIALLY. COUNTERBORE 14MM
DEEP (BOTH TOP AND BOTTOM)
FOR 3/8"BSW NUT AND WASHER.
THEN DRILL TO 3/8" DIA.



DETAILS OF FRONT AND REAR JAWS
MATERIAL ASSEMBLED FROM 5 LAYERS OF 18MM THICK CHIPBOARD
ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED

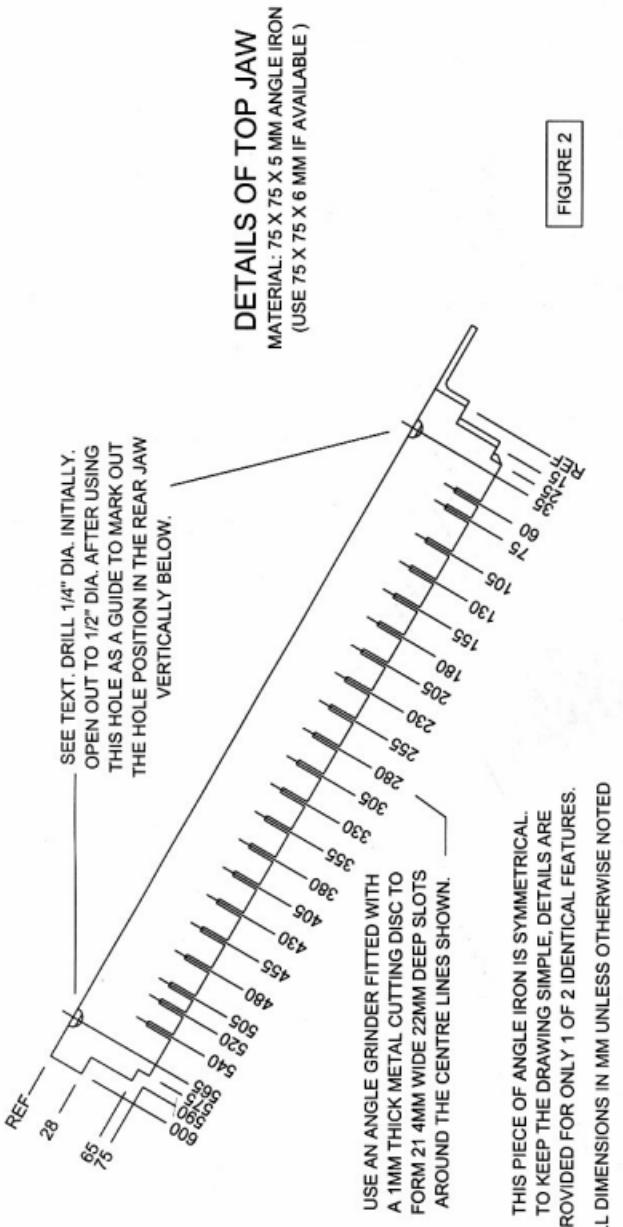
FIGURE 1

Making the beast

Firstly, obtain all your steel as well as all nuts, bolts and screws. Next, fabricate all the steel work shown in Figure 3 so that it is ready and can be fitted exactly to the woodwork. Before fabricating the hinges, measure the shank diameters of the hinge retaining screws you are going to use ($13/64"$ is specified in the drawing but this is a guide only!) and accurately drill the hinge plates to exactly accommodate this diameter. This will prevent slack developing in the hinges as the bender is used. Note that wood screws must be used to retain the hinges. Wood screws have long unthreaded shanks and this design feature allows them to take very big side forces without movement developing (unlike chipboard screws). Also, very carefully measure the diameter of the shanks of the coach screws used to make the hinge pins and drill the hinge holes to match. Slop of any sort should simply be avoided in the bending action.

The method used to make the top jaw is worthy of comment. To cut the 4 mm wide slots in this component, space your angle grinder away from a chipboard base plate with a timber spacer so that the cutting wheel is in the same position as the grinding wheel on a bench grinder. (Screw the spacer to the base plate, and attach the angle grinder to the spacing timber with long screws and scraps of aluminium). Provide support for the top jaw during cutting with another piece of timber which has been screwed to the base plate and is mounted in front of the cutting disc (providing the same function as the tool rest on a bench grinder). The 1 mm thick cutting disc used is normally chosen to trim the ends of the steel sheet used for roofing and fencing and has a staggering life. Believe it or not, one disc (around \$2.60) will do all of the cutting in the 5 mm thick steel used for the top jaw and will show almost no wear. During the whole cutting process my disc reduced in diameter by about 2mm and this was only because the abrasive grit at the disc edge became dull and would not cut, and a wheel dresser had to be run on the disc edge to remedy this. I cut the outsides of the slots first, and then removed the remaining central web with a thicker metal cutting disc. Note that if the bender is to provide the continuous width coverage advertised, the slots must have a width of 3.5 to 4

FIGURE 2

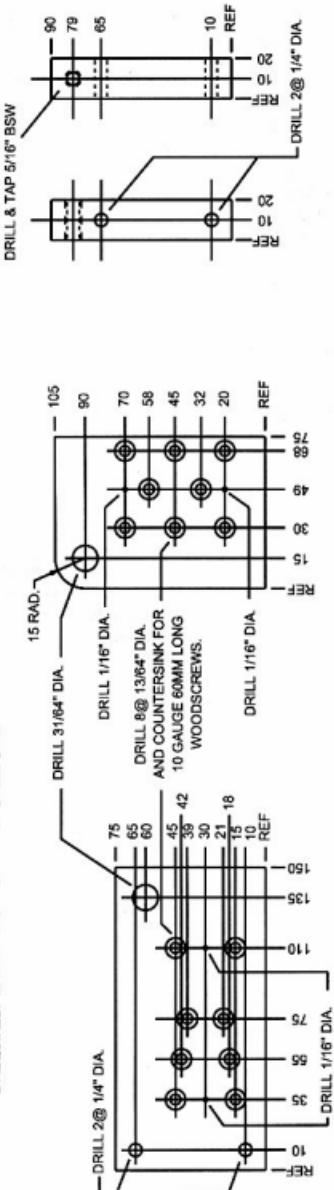


DRILL 8@ 1/8" DIA. AND COUNTERSINK
FOR 4 GAUGE 25MM LONG SCREWS.



FRONT AND REAR JAW RE-INFORCING STRIPS

2 REQUIRED. MATERIAL: 3 X 25 MM MILD STEEL STRIP

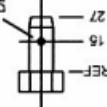


HINGE PLATE- REAR JAW
2 REQUIRED. ONE MIRROR IMAGE OF OTHER
MATERIAL: 75 X 6MM MILD STEEL PLATE

HINGE PLATE- FRONT JAW
2 REQUIRED. ONE MIRROR IMAGE OF OTHER
MATERIAL: 75 X 6MM MILD STEEL PLATE

THRUST POST
2 REQUIRED
MATERIAL: 20 X 20MM
MILD STEEL BAR

DRILL 1/8" DIA.

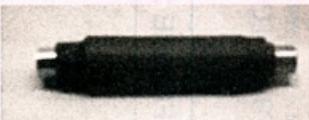


NOTES
1. ALL DIMENSIONS IN MM UNLESS OTHERWISE SHOWN
2. DRAWN VS/ST APRIL 2007

OTHER ITEMS NOT SHOWN
HANDLES- 2 REQUIRED- MATERIAL: 300MM LENGTH OF 9 MM DIA. M.S. ROD
TOP JAW RETAINERS- MATERIAL: 180MM LENGTH OF 3/8"BSW THREADED ROD

FIGURE 3

TVI High Pass Filter with Braid Breaker.



An inline TVI filter with Braid Breaker.

A large amount of TVI can travel down the outer braid of Coax as well as the centre conductor. The braid breaker isolates the centre conductor and braid from the TV/VCR/DVD. The High Pass filter cuts in at 50MHz. This filter has -80dBm attenuation at 40, 80 and 160 Metres.

Pager Notch Filter:

A receive filter that can be used in an outdoor housing (Pictured) to be mounted close to your antenna on the mast, or can be used in a diecast box for indoor use near your transceiver or receiver. The filter is set to 148.5 MHz but may be tuned by the user across the 148 to 149 MHz Pager band. A selection of connectors are available including BNC and N Type. Where transmit is required this filter can be switched out of circuit by the use of coaxial relays linked to the PTT switch.

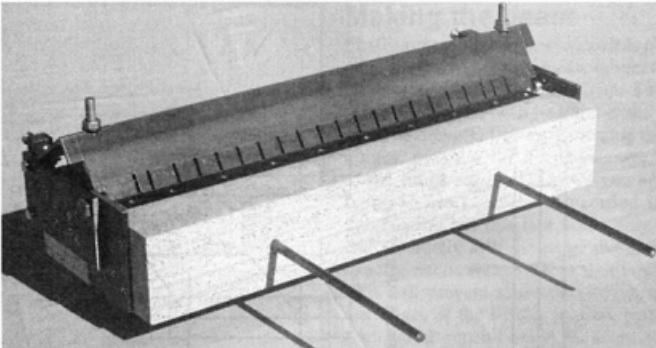
Contact us if you need a special filter, we manufacture here in Australia rather than overseas.

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mm and be precisely positioned about the centre lines specified in the drawing with an accuracy of 0.5 mm. Of course, if you have access to a drill/mill, making the top jaw accurately is dead easy.

To drill the holes in the top of this jaw, work from the back of the angle iron. The back of the material normally has a nice radius where the two sides join, which allows easy marking out and drilling. Work slowly and very gently, particularly when the drill is just about to break through. This is where you will break your drill if you are not working slowly, as you are not breaking through a flat surface. Do NOT drill these holes to their final size of $\frac{1}{2}$ " diameter just yet. Instead use a $\frac{1}{4}$ " diameter drill. These two holes will later be used to mark out where the holes in the back jaw lie for the two top jaw retaining screw threads. The holes in the back jaw have to be counter bored with a spade bit to conceal the nut and washer used, and spade bits rarely come with lead ins of much over $\frac{1}{4}$ " diameter.

Finally, excess steel has to be removed from the edge of the angle iron in which the fingers have been cut. This can easily be done by hand with an angle grinder fitted with a cupped grinding wheel, provided a wooden guide is made up of the correct height and angle to fit the rear of the angle iron (see the photo). The correct angle is 50 degrees and the height of the wooden guide is adjusted on your saw so that the absolute minimum of steel has to be removed. Over a large wooden surface a metal grinding disc will basically polish rather than cut, and this handy observation can be used to force the cutting disc (and its operator) to the precise angle and height required. When the grinder starts skidding on the

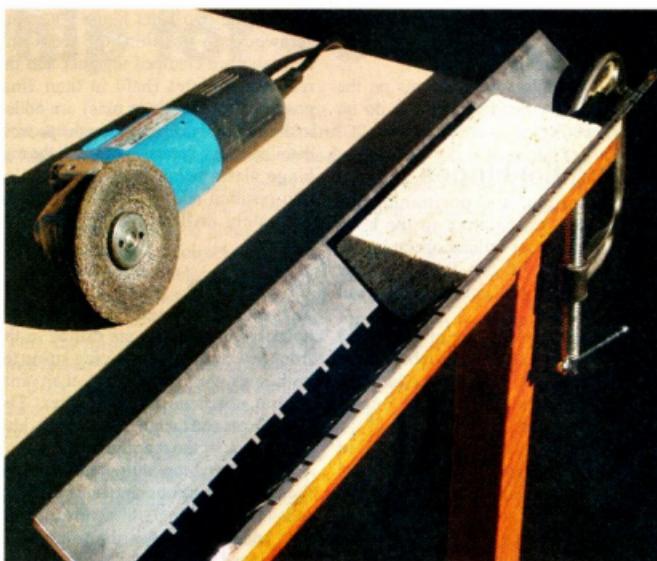
wooden surface rather than cutting into the steel, you have reached the right height. Proceed slowly and evenly, sliding the guide up and down the inside of the angle iron, and checking with a straight edge as you go. You will be surprised at how accurate and easy this apparently crude process is. When you have finished, form a small radius on the leading edge (say 0.5 mm) with a file so that the leading edge does not cut into the material being bent.

Once all your steel work is complete, start on the woodwork. Both wooden components are fabricated from 5 layers of 18 mm thick chipboard and can be cut from 600 mm wide material (half a standard sheet width). If you can't get 18 mm thick material then use 5 layers of 19 mm (95 mm) or 6 layers of 16 mm (96 mm). Chipboard is the ideal material because its mechanical properties are independent of direction (it has no grain), it is easily shaped, mechanically stable, and is flat and cheap. When I first started thinking about the bender, I contemplated the use of red gum fence posts. I quickly gave away this idea because red gum has grain, and under the huge stresses of bending may split along the grain, with the split starting at one of the hinge retaining screws. Note that MDF (craftwood) is formed in layers and behaves as if it has a grain. It should not be used. To see how weak this stuff is, drive a nail into the edge and observe. It is only mechanically strong through its thickness.

Straightness is everything in this design. The two bending edges should exactly mate to better than, say, 0.2 mm. Likewise the bending comb in the top jaw should be straight and mate with great precision with the hinge centre

line in both horizontal and vertical directions. Any old piece of wood can be made straight on a circular saw by using a straight timber or steel guide of the correct length. The correct length for the guide is at least twice the length of the material being sawn plus the saw diameter (at least 1500 mm for the timbers used here). This guide is positioned on the saw table so that there are equal lengths of guide on either side of the saw blade. To straighten a piece of wood with a banana bend, place the timber on the saw table so that the two ends of the banana contact the guide. Push the timber past the saw blade and this will give you a perfectly straight edge on the saw blade side. Now you can flip the timber over and process the other side of the banana. Use this technique when sawing the pieces of timber for the bender.

When you are glueing the various bits of chipboard together to form the bender jaw pieces, use plenty of PVA glue and a paint brush to ensure that every part



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of the surface is covered. Use a straight edge during assembly to check that everything remains straight.

Complete all saw operations on the front and rear bender jaws but do no drilling yet.

Fitting the hinges

This operation, and positioning the top bender jaw relative to the bend line, are the most critical operations in assembling the bender. Take your time and avoid short cuts and the bender will work.

Temporarily place one of the 25 x 3 mm reinforcing strips in its rebate in the front bender jaw. Find eight nails with shank diameters of 1/16" and lengths of around 25 mm which exactly fit the two 1/16" diameter nail holes provided in each hinge plate. Place a front hinge plate against one end of the front jaw, and position the plate so that the bending line (the front top of the 25 x 3 mm strip) lies exactly at the centre of the hinge hole. Set the plate into its correct position by driving the two nails into the chipboard. Now use the other holes in the plate as a template to drill the holes for the screw shanks in the chipboard (about 25 mm deep). Last, drill all holes in the chipboard to accommodate the screw thread minor diameter (around 55 mm deep). Screw the plate into final position. Repeat this process for the other end of the front jaw.

Once the two front hinge plates are screwed into position, the front and rear jaws are clamped together and the rear hinge plates (held in their final positions by the hinge pins) are added to the assembly. Once again the process detailed above is carried out with the rear hinge plates being temporarily nailed into position and used as templates to accurately drill all the holes for the screws.

Finishing

To finish off the front and rear jaws, the holes for the handles are drilled in the front jaw, and the reinforcing strips for both jaws are screwed into their final central positions in the rebates. The thrust posts and their hardware are added to the back of the rear hinge plates.

The rear and top jaws are placed into their final positions and the retaining rods (180 mm long 3/8" screw threads) then added. To do this the front jaw is first hinged up through 90 degrees into its final position to complete a 90 degree bend. A piece of 1 mm thick material is inserted at either end between the reinforcing strip on the front jaw and the front bottom of the top jaw. The bolts at the top of the thrust posts are adjusted to bring them into contact with the rear of the top jaw (you will need to grind two flats on the rear ends of the top jaw for the bolts). This locks the top jaw into its

correct position and the bottom jaw can now be pilot drilled with a 1/4" diameter drill, using your bench drill and the pilot holes in the top jaw as a guide.

The top jaw pilot holes are then opened out with a 1/2" diameter drill bit. Again, work slowly and very carefully from the rear of the angle iron. Next, the bottom jaw is drilled right through using the 1/4" drill. Counterbores for the nuts and washers are then completed (approximately 14 mm deep top and bottom) with the appropriate spade bit. Last, the 1/4" diameter pilot holes in the rear jaw are opened out to 3/8" diameter. As a final touch, the wooden jaws may be given a coat of varnish.

Using the Bender

The 5/16" bolts (with their lock nuts) at the top of the thrust posts should be adjusted so that when the top bender jaw has been pushed back hard, one and a half material thicknesses exist between the top jaw and the front jaw, when the front jaw has been hinged right up to the 90 degree position. This law applies irrespective of the material thickness being bent and will give excellent bends. Never force the bender. All bends should be set up so that bending is easy. Finally, the top jaw retaining nuts (or wing nuts if you prefer) should only ever be tightened with your fingers.

And now the real fun can begin.

Appendix

JAW NUMBER WITH WIDTH IN MM

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
15	30	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	15	20

INTERNAL WIDTH OF ITEM FOLDED (IN MM) VERSUS JAWS USED

5	-	85	QT	165	MS	245	AJ	325	CO	405	BQ
10	-	90	PS	170	AG	250	CL	330	BN	410	DT
15	A	95	AD	175	CI	255	BK	335	GT	415	CS
20	T	100	CF	180	BH	260	JT	340	FS	420	AQ
25	C	105	BE	185	MT	265	IS	345	AN	425	-
30	B	110	PT	190	LS	270	AK	350	CP	430	BR
35	ST	115	OS	195	AH	275	CM	355	BO	435	CT
40	RS	120	AE	200	CJ	280	BL	360	FT	440	-
45	AB	125	CG	205	BI	285	IT	365	ES	445	BS
50	CD	130	BF	210	LT	290	HS	370	AO	450	-
55	BC	135	OT	215	KS	295	AL	375	CQ	455	-
60	RT	140	NS	220	AI	300	CN	380	BP	460	AS
65	QS	145	AF	225	CK	305	BM	385	ET	465	BT
70	AC	150	CH	230	BJ	310	HT	390	DS	470	-
75	CE	155	BG	235	KT	315	GS	395	AP	475	-
80	BD	160	NT	240	JS	320	AM	400	CR	480	AT

Mobile whip for 40 metres

Ron Holmes VK5VH

I have built whip antennas using several different designs, for both 40 and 20 metres. This article provides the construction details of one model that has proved very successful, to assist anyone keen to make their own.

The antenna comprises a helical-wound lower section with a telescopic whip mounted on top to provide length adjustment. The helical section is wound on a plastic pipe and this is enclosed in an outer pipe to provide weather protection, as well as mechanical strength.

The construction materials are readily available from hardware stores.

Helical section

I used PVC pipe with an outside diameter of 22 mm. Its total length is 50 cm and the helical winding occupies the central 45 cm.

The winding was made using bare copper wire, about 0.5 mm diameter. I have also used plain tie-wire for this but the important point is that the wire diameter must be small enough to allow the assembly to fit inside the outer tube. The winding pitch is not critical at about 5 turns per cm. The wire was anchored at each end using a small hole drilled through the pipe. Add a coat or two of clear varnish to hold the windings in place.

A piece of wooden dowel, about 5 cm long, was glued inside one end of the pipe. A hole was bored along the axis of the dowel, of the correct diameter to fit and support the telescopic whip. A similar method was used at the other end to fix in place an axial mounting screw. This should have the correct diameter and thread to suit your antenna base.

Using two flexible insulated jumpers, I connected the helical winding to the telescopic whip at the top end and to the mounting screw at the bottom. These soldered connections should be made with care, watching out for dry joints.

Final assembly

My outer tube was made from similar PVC piping with an outside diameter of 27 mm. The length was 50 cm, the same as the inner pipe. Also required are two end caps to fit the larger pipe.

A hole was drilled through the centre of each end cap, one to suit the diameter of the telescopic whip, and one to suit the mounting screw.

The final assembly was completed by sliding the smaller pipe inside the larger one, and adding the two end caps. The latter were fixed in place with a couple of short self-tappers. The antenna is shown in Figure 1, using a cut-away presentation to expose the inner pipe and helix.

Options

I have added a modification to this design which allows it to be used on 20 and 30 metres, as well as 40 metres, thus covering the most commonly used mobile bands. All this requires is a tapping on the helix about 18 cm up from the bottom and an external flexible lead connected to the tap. With a sturdy clip, connect the other end of this lead to the base of the telescopic whip for operation on 20 metres, or to the mounting screw for 30 metres operation.

A similar mobile whip can be made specifically for 20 metres by following the same design, but making the pipe length 35 cm instead of 50 cm.

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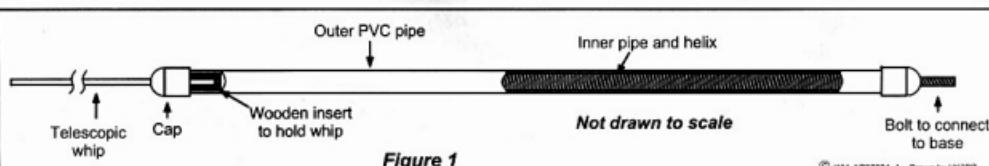


Figure 1

© WIA ARD7024 Drawn by VK5VH

Figure 1: Whip assembly (cut-away to show helix).

A precision sheet metal bender for around \$40 continued

Parts List

Steel cut to size

- 2@ 150 mm lengths of 75 x 6 mm mild steel flat bar
- 2@ 105 mm lengths of 75 x 6 mm mild steel flat bar
- 1@ 600 mm length of 75 x 75 x 5 mm angle iron (or 75 x 75 x 6 mm if available)
- 2@ 530 mm lengths of 25 x 3 mm mild steel flat bar
- 2@ 90 mm lengths of 20 x 20 mm mild steel bar

- 2@ 300 mm lengths of 9 mm diameter mild steel rod

Hardware

- 32@ 10 gauge 60 mm long countersunk steel wood screws
- 16@ 4 gauge 25 mm long countersunk steel screws
- 6@ 3/8" BSW steel nuts
- 6@ 3/8" bore steel washers
- 2@ ½" (shank) diameter steel coach screws (hinge pins)
- 2@ 3 mm diameter 25 mm long split pins

- 4@ 30 mm long ¼" BSW steel bolts
- 4@ ¼" BSW steel nuts

- 2@ 40 mm long 5/16" BSW steel bolts
- 2@ 5/16" BSW steel nuts
- 2@ 180 mm lengths of 3/8" BSW threaded steel rod

Timber

Sufficient 18 mm thick chipboard offcuts to make 5 strips 115 mm wide x 600 mm long and 5 strips 100 mm x 600 mm long (see text for alternatives).

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Satellite reception report – Sputnik

Gerry Wild VK6GW

In October 1957, I was living in Albany WA whilst employed at the local commercial radio station 6VA. I recall reading in the local press that the Russians had launched the first space vehicle and that it was transmitting "beeps" on 20.005 and 40.002 MHz as it raced around the earth.

A few evenings later, I was sitting with my wife on the back steps of our house looking at the darkened sky when we noticed a small flashing object coming over the horizon and heading directly overhead. At that time my Ham shack was located directly behind us on the back verandah. In those days my transmitter was double sideband running 8 watts input to a doublet antenna fed by open wire tuned feeders. The clothesline was one of those twin parallel wire arrangements suspended on horizontal wooden supports. It was easily adapted as an antenna, one of the wires acting as a director, the other cut in the centre and modified to suit the doublet configuration.

My receiver was an AWA 5 valve dual wave (which I still have). This had been modified for ham use by wiring a small variable capacitor in parallel with the oscillator section of the tuning gang. The set had been in operation as I had been monitoring our local broadcast. Quickly switching over to SW, I had no trouble at all hearing the "beeps" getting louder and louder. We were absolutely stunned, and the first thing I did next morning was send off a report of the sighting and reception to the USSR Academy of Science in Moscow. The QSL card I received is one of my prized possessions.

I did some research later on and discovered that Sputnik is the Russian word for satellite. It weighed 83.6 kilos, was in the form of a sphere of 580 mm diameter and carried four rod antennas 2.4 - 2.9 metres long. The instruments

and power sources were housed in a sealed capsule and included transmitters operating on 20.005 and 40.002 MHz, sending series of pulsed signals of 0.3 sec duration. The power source permitted operation of the equipment for three weeks. The satellite lasted 92 days and burnt up in the denser atmosphere on January 4th 1958.

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Below and right: The card received by the author. Not being a speaker of Russian, I can only surmise it is an acknowledgement of some sort.



*Участнику наблюдений за первыми в мире
Советскими искусственными спутниками Земли*

G.K. Wild

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Scouts have been talking for 50 years

Jamboree On The Air (JOTA) and Jamboree On The Internet (JOTI)

Bob Bristow VK6POP
JOTA-JOTI Coordinator
Scouts Australia



This annual activity is almost upon us again. This year, 2007, is a special one for JOTA – it is the 50th occurrence of the event.

For the last 50 years, amateur radio operators have promoted and supported JOTA with enthusiasm and calm efficiency. I remember being quite bewildered by all those knobs and dials, and admiring of the ham's ability to turn and tweak them to make something happen.

The Jamboree On The Air began as an amateur radio station at the World Scout Jamboree at Sutton Coldfield in 1957, marking the 50th anniversary of Scouting. The amateur radio activity was a success and Jamboree On The Air began as a separate event in 1958.

Jamboree On The Air grew in popularity and is now, along with Jamboree On The Internet, the largest international Scouting event in the world. Around 500,000 Scouts and Guides take part in this global event every year.

In the 1990s the internet grew in popularity and Scouts were quick to make use of new technology to meet and talk to each other. In November 1996, the World Scout Committee, noting that Scouting already had a considerable presence on the Internet, and that there was already an informal and rapidly growing Jamboree On The Internet, decided that JOTI should become an

official international Scouting event, and that it should be held on the same weekend as the Jamboree On The Air (JOTA).

These days as technology develops, amateur radio uses the internet to connect radios to computers, radios to radios and as a source of information. As technology further develops, the equipment we use for communication will become smarter and more powerful.

Some of the South American Scout Associations no longer use the terms "JOTA" and "JOTI", rather they call the event JOCOMM – Jamboree On Communications. Not quite the same

ring to it I must admit, but possibly it works better in Spanish.

Who knows where the activity will go, and how much more blending of computers, radio and internet will happen?

For that, we have that to look forward and imagine, or just wait and see.

Meanwhile, to all those who have been involved in, or are about to become involved in, JOTA-JOTI, thanks for your contribution.

Information regarding JOTA-JOTI can be found at www.scouts.com.au

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Scouts celebrate 100 years

Bob Bristow VK6POP

Scouts around the world celebrated the centenary of Scouting in the first week of August with sunrise ceremonies at 0800 local time, where Scouts and ex-Scouts re-affirmed their Scout Promise. During that week there was a World Jamboree in England, attended by 42,000 Scouts from most countries in the world, and a re-enactment camp took place on the island to celebrate the Centenary of Scouting. Other countries held jamborees and camps at the same time.

August 1st is the anniversary of the Brownsea Island camp, which was a boy's camping event on Brownsea Island in Poole Harbour, southern England, organised by Lieutenant-General Baden-Powell to test his ideas for the book Scouting for Boys. Twenty boys from different social backgrounds participated from 1 August to 8 August, 1907, in activities around camping, observation, woodcraft, chivalry, lifesaving and patriotism. Recognised as the world's first Scout camp, the event is regarded as the real origin of the worldwide Scout movement.

At the same time, Scouts formed a global network via amateur radio and the internet to make contact and pass greetings to each other.

Scouts in Perth, Western Australia conducted a replica camp on Heirisson Island in the Swan River, in the centre of the city of Perth. They arrived by boat and set up camp in the roughest weather so far this year. They survived gale force squalls and torrential rain for the first four days of the camp.

The Scout Communications and Technology Team was asked to provide an internet connection to the camp. There is no infrastructure on the island. We decided that if we were providing an internet connection to the world, the radios will be there too.

Access to the school's wireless network was negotiated with Trinity College, which is situated about 500 metres away on one bank of the river, and the challenge was to make a reliable link.

The school's network was visible on a laptop, which was encouraging, however signal strength wasn't reliable. This called for stronger stuff. A 24 dBi parabolic antenna was deployed outside the shack; however the link was still unreliable due to the trees, rain and a combination of both. The antenna

was relocated 75 metres closer to the riverbank to improve the line of sight, and a wireless access point added at the antenna to provide a link to the shack. With a little juggling of the position of the antenna, we could get a healthy signal in the shack.

The internet connection wasn't a big success because of the restrictions on the ports available on the education system, and we couldn't use Echolink and some other software.

The radio shack was in an ex-army 11 x 11 tent. We had two HF rigs, and two 2 m / 70 cm rigs.

Antennas were supported by a 10 metre Hills telescopic tubular mast. Antennas for VHF/UHF were home brew 'pogo stick' coaxial vertical dipoles, and for HF, inverted vee dipoles for 80, 40 and 20 metres.

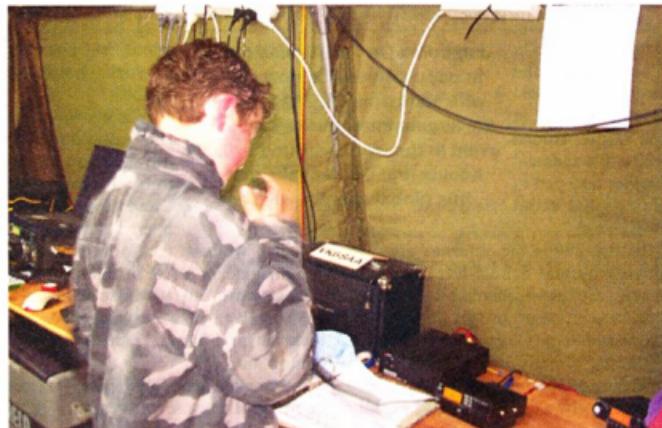
Electricity was supplied with a 5 kVA generator. This was far superior to our previous portable efforts with smaller generators where the lights modulated

with our speech and the generator 'coughed' when we hit the PTT.

We made successful contacts around the world using Echolink via the VK6RLM repeater. Contacts included GB100BI (the Brownsea Island camp), GB100J (the World Jamboree site near Chelmsford, Essex), 8J100S and others.

We learned a lot from those six days in the rain. Lessons ranged from being more careful about placement of antennas in relation to each other through to the need to set up skeds to ensure there is someone to talk to the Scouts.

The most rewarding part of the weekend was the interest shown by the young people in the radios, and the thrill they experienced when speaking by radio to Scouts at the World Jamboree and Brownsea Island. Amateur radio isn't dead. We must all do what we can to bring the hobby out into the open and show young people that it is as alive and relevant now as it ever has been.



A Scout operates the Heirisson Island amateur station VK6SAA during the celebration of the 100th birthday of Scouting.

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A project for beacon-watchers

Here is a project that could keep you occupied for hours, days, perhaps permanently.

Some in the satellite fraternity are already involved, and their efforts have been rewarded. I'm referring to listening for the beacons of defunct satellites.

Here's a way of seeing your name up in lights. Be the first to report an old amateur radio satellite returning to life.

In general terms, the batteries are the weak link in any amateur satellite and it's usually the battery that fails first. Limited solar power charging can be a contributing cause. The result is usually an eventual inability of the solar cells to maintain battery condition during eclipses. That leads to further deterioration of the battery and failure results. The good news is that some battery failure conditions can sometimes correct or partially correct themselves over time. An internal short circuit in a cell can cause the whole system to fail and make the solar cells inoperative as well. The internal short may become open again, as is suspected to have happened in AO-7. Even though the battery may be otherwise almost useless it means the solar cells can again provide power to the electronics. The bird will be totally dependent on sunlight of course but at least it is operating again.

What are the chances of this happening again? Who knows? But with so many defunct satellites still in orbit it can't hurt to listen for beacon activity – at least from time to time.

Here is a list of defunct satellites known to be still in orbit and their beacon or down link frequencies. You may like to devote some time to listening for them. The list is abbreviated to just the satellite name and most likely frequency so you can keep it handy. Full details are always available on the AMSAT web site. Keplerian elements are still available for these satellites.

NCUBE-2:	437.305 MHz
XO-53 SSETI:	437.250 MHz
UWE-1:	437.505 MHz
AO-49:	145.825 MHz

MO-46:	437.325 MHz
NO-45:	437.095 MHz
SO-42:	437.075 MHz
SO-41:	436.775 MHz
AO-40:	435.438 MHz
OO-38:	437.100 MHz
UO-36:	437.025 MHz
SO-35:	436.291 MHz
PO-34:	436.500 MHz
SO-33:	437.910 MHz
TO-31:	436.925 MHz
AO-16:	437.026 MHz
PO-28:	429.950 MHz
IO-26:	435.808 MHz
KO-25:	436.500 MHz
KO-23:	435.170 MHz
UO-22:	435.120 MHz
AO-21:	145.983 MHz
FO-20:	435.795 MHz
LO-19:	437.125 MHz
WO-18:	437.104 MHz
DO-17:	145.825 MHz
UO-14:	435.070 MHz
FO-12:	435.910 MHz
AO-10:	145.810 MHz
AO-8:	29.4020 MHz
AO-6:	29.4500 MHz
AO-5:	144.050 MHz
OSCAR III:	144.325 MHz
RS-15:	29.352 MHz
RS-13:	145.860 MHz
RS-12:	29.408 MHz

A few obvious candidates would be UO-11 which only recently disappeared and could return at any time. AO-10's beacon is definitely worth some effort. Who knows when it could again spring into life? Imagine being first to report a weak signal from AO-40.

Your own personal satellite?

How would you like to have your own personal satellite in orbit and be able to control the modes and frequencies of operation? Pipe dream? Almost certainly – but you can have the next best thing. AO-51 has a variety of modes available and the mode schedule is "adjusted"

each month by AO-51 controller, Drew KO4MA. From time to time, usually once a month, Drew calls for requests from users everywhere for a particular mode to be scheduled for the following month. You may like to see certain modes turned on more frequently or perhaps at a time you are planning that hill-top DXpedition. E-mail Drew at <ao51-modes@amsat.org> and he will do his best to accommodate your requests. This is a great service and is about as close to having your own personal satellite at your disposal as any of us will get.

Sounds from space

There have been several collections of "Space Sounds" that I can remember and some of them have been offered for download or sale. This is the latest effort. Matthias, DDIUS invites satellite operators to visit his "Sounds from Space" website at <<http://www.ddius.de>>. He has posted a collection of recordings from various space objects. Most of them are ham radio satellites with some commercial satellite sounds.

ISS milestone

How many can remember the very first module of ISS being propelled into orbit? It was featured on all the news media. Named "Zarya" (Sunlight), it was launched on Nov-20 1998 and on August-14 this year NASA announced that it had completed 50,000 orbits. That is nearly 9 years ago and that makes it the oldest part of ISS. Can you remember what kind of computer and radios you were using 9 years ago?

A first for ARISS

Amateur Radio on the International Space Station (ARISS) passed a significant milestone recently. School children in China took part in the first ARISS contact with that country. Full details are available on the ARISS web site. Briefly, the contact took place with students from the Nanjing No. 3 High School in Nanjing, Jiangsu. Present at the time of contact were two long time Chinese radio amateurs, Chen BA1HAM, and Tong BA1AA, along with a host of local officials, parents and school personnel.

Robin Harwood VK7RH

Online operating is not always easy!

This year is rapidly flying by and over the past weeks I have found it increasingly difficult to spend quality listening time on my two receivers. As I have previously remarked, I do miss the opportunity I had to remotely operate online receivers in various locations. No replacement has emerged and I somehow suspect that security considerations plus copyright issues have made it difficult to reopen an online portal. Yes there are two small receivers within the USA but they do not use the Java software. I can only download recorded audio in either 10 second or 30 second snippets. They also are in heavy demand so it is not possible to do any sustained monitoring, so it is back to using my own receivers and antennas.

Saving daylight?

As I was compiling this, I received a query when Daylight Saving was starting. You may recollect that there was a tentative agreement for having a standard date for commencement, because under our Constitution, the regulation of time is normally left to the State jurisdiction. This has led to continuing confusion as it pertains to daylight saving because there was no consensus regarding the changeover dates.

Tasmania has traditionally commenced on the first Sunday in October and NSW, Vic, SA and the ACT on the last Sunday. I believe that a standard changeover date has been now agreed to by all states plus NZ with the exception of Queensland and the Northern Territory. But when does this come into effect? Well, NZ has already enacted legislation for daylight saving to commence on the last Sunday in September till the first Sunday in April, yet I have not seen any confirmation that these common dates

will commence this year in Australia. (*In Victoria, daylight savings commences on 28 October 2007. In 2008, it moves forward to 5 October 2008. Ed.*)

Of course, the majority of the Northern Hemisphere will revert to the standard time at the end of October, whilst North America and Cuba will revert the first week in November. It truly is a pity that there is no worldwide uniformity for a worldwide common date to minimise confusion. Incidentally, Venezuela has opted to change their standard time zone from UTC-4 to UTC-4.5 as from next year. This decision is political and not commercial.

The changeover date in the Northern Hemisphere, that is October 28th, also means that the B-07 period commences. This is when broadcasters traditionally alter their frequencies and hours to compensate for propagation changes from Summer to Winter (Winter to Summer in the Southern Hemisphere). It also seems when some broadcasters have

opted to cease shortwave broadcasts due to budgetary pressures or falling audience figures. This has allowed us to find some smaller domestic broadcasters which have been hidden by the higher powered international senders.

There are two small receivers within the USA but they do not use the Java software. They are in heavy demand so it is not possible to do any sustained monitoring.

Sadly these smaller outfits are also disappearing. In one instance, the lack of spare parts for an ageing sender has forced the organisation to cease broadcasting on shortwave.

Well, that is all for this month. Remember you can always send me your news and comments via email to vk7rh@wia.org.au or via the post to 20/177 Penquite Road, Norwood, Tasmania 7250.

73 de VK7RH

Wide publicity on local radio, TV and the World Wide Web via two major internet news portals in China enabled the event to reach an (amazing) estimated 100 million people.

AMSAT-VK mailing list

At present there are 70 people on the AMSAT-VK e-mail list kept by Graham VK5AGR. Graham has reported that some of the e-mail addresses he is holding may not be up to date. He is getting several bounces each time a mailing goes out. Have you changed your ISP or your username recently? Perhaps it slipped your mind to advise Graham. Has it been some time, months perhaps since you received any e-mail information or reminders from Graham? Please check and if you feel there is any doubt, drop him an e-mail so he can check your address against his current list.

ar

The AMSAT group in Australia

The National Co-ordinator of AMSAT-VK is Graham Ratcliff VK5AGR. Contact Graham if you wish to be placed on a mailing list for breaking news and net reminders. As a forum for members AMSAT-VK operates two monthly nets.

AMSAT-Australia Echolink Net

The "Echolink" net meets on the second Sunday of each month. Anyone with an interest in Amateur Radio Satellites is welcome to join the net. Graham VK5AGR acts as net controller. The net starts at 0500 UTC during summer time periods and 0600 UTC during winter standard time periods. Connect to the AMSAT conference server on Echolink a few minutes before these times.

AMSAT-Australia HF net

The HF net meets informally on the second Sunday of each month. In winter (end of March until the end of October) the net meets on 3.685 MHz at 1000 UTC. In summer (end of October until end of March) the net meets on 7.068 MHz at 0900 UTC. Start listening 15 minutes before these times. All communication regarding AMSAT-Australia matters can be addressed to:

AMSAT-VK
9 Homer Rd
Clarence Park SA 5034
Graham's e-mail address is:
vk5agr@amsat.org

A truly amazing ALARA contest

The conditions for the ALARA Contest this year were amazingly good. For some weeks, 80 metres has been extremely noisy for the Monday night Nets, so we were not very hopeful for the two nights of 80 metres during the Contest. In the event, the band was so quiet we could hear stations booming from far and wide.

It was great to have so many of the new F-call YLs participating, and getting very good scores into the bargain.

It was lovely to hear Norah VK5NYD and her OM David VK5AYD from Coober Pedy. They may not be around during the rest of the year but they have become regulars in the ALARA Contest. For new people to have a chance to speak

to people who live most of their lives underground is a new experience.

There were stations from every state and territory of Australia and several ZLs to be heard each evening.

During the daylight hours (and others), we had quite a number of our DX members listening out for contacts.

Judging from some of the scores heard towards the end of the Contest, there had been some 24-hour operators, I think.

I am sure we will all be delighted at the number of participants and the scores gained by the top scorers.

For a Contest that was close to being cancelled because of lack of support, the ALARA Contest has become a very viable Contest.

Now all we have to do is to have sent our logs to Marilyn VK3DMS, either by email or snail mail. The details were in the ALARA Newsletter and in the July issue of Amateur Radio.

Logs were due in by the end of September. No matter how small or how big your log, every one counts and you should have copied it out and sent it to Marilyn.

Did you get enough VK contacts for an ALARA Award?

We have made it simpler to get this attractive award. VK and ZL amateurs need only 10 YL ALARA member contacts from 4 different call areas, while DX amateurs need just 5 YL ALARA member contacts from 3 call areas.

The certificate has been redesigned by Kathy VK3XBA but still includes the floral emblems of all the states and territories of Australia, and the lovely golden wattle as well.

Each certificate will now have a date of issue and a serial number on it. As the inside back cover of the July AR shows us, the very first of the new certificates was awarded to one of our newest and keenest members, Pam VK5FABB, now VK4PTO.

If you have made enough contacts for the award please send your applications to Kathy VK3XBA QTHR the callbook, along with 3 IRCs or A\$5.

Your certificate will be a beautiful addition to your "brag wall".

VK3 has a special luncheon

The VK3 YLs had a Saturday luncheon at the Mountain Gate Hotel recently. Jean VK3FJYL was one of the main organisers but there were a number of others very keen YLs helping her out.

There were quite a number of new ALARA members but there were also several long-time members.

Pat VK3OZ came across from the Western Port Bay area and Jenny VK5ANW - who is spending so much time in VK3 these days that she is not sure to which state she belongs - made a cross-country trip to be there. Jenny is one of the earliest ALARA members and Pat has been active in ALARA for many years. They thoroughly enjoyed joining up with and encouraging the 'newbies'.

If the attendance at this first luncheon is any indication we have a vibrant group coming along.

This is the same group which has been meeting for coffee every couple of weeks as well, so they are keen to exchange ideas. Well done. Perhaps other groups will follow suit.

Our members continue their other interests, too

Recently VK5 had a series of State-wide Living Artists Exhibitions. Meg VK5YG had paintings in three different galleries around Murray Bridge and sold a couple of paintings as a consequence. She was also active in 'manning' the galleries during the month-long exhibition.

Well done Meg, and well done to all the artists within the ranks of ALARA. There are a number of talented artists among us but unless they tell us what they are doing we cannot tell everyone else.

Please let Dot VK3DB and I know all about your activities within and without amateur radio.

Correction ALARA award rules

p50 Amateur Radio September

My address should read:
"14 William St etc", not "4".
"4" is the town house at the end of the street.

I hope the postman will realise the error, but to be safe, if you have already sent your information to "4", could you please resend it to "14".

The error was made during publishing.

73
Kathy VK3XBA
Awards Custodian, ALARA

Bill Taylor VK6XA

1925-2007

Bill passed away peacefully at Fremantle Hospital on 25th July.

His life had been a long succession of varied experiences – different jobs, different homes, in different parts of the world (and different states of Australia). One thing remained constant, and that was his enthusiasm for amateur radio. This interest began when he learned the Morse Code at the age of eleven.

At age sixteen (when he claimed to be seventeen), he joined the Services and spent time in the Royal Canadian Army; then in the United States Marines serving in the Pacific where he retrieved radios from crashed enemy aircraft and typed incoming coded messages (while at the same time reading novels!). Malaria forced him to be repatriated to America. Following his recovery a couple of years later, he joined the United States Army and went to Japan as a member of the occupation force. During the three years he spent there he learned to speak the language like a native, and also married. He returned with his wife to America and then was sent off to France and Berlin with the Counter Intelligence Corps. He carried out very dangerous assignments which included the use of electronic search equipment and electronic surveillance equipment. Back in America once more, he left the Service in 1954 and worked for a number of companies, to do with technical things – as a television lighting engineer; writing operation and maintenance manuals for Vandenberg Air Force Base; repairing and calibrating digital voltmeters, radiometers and AC converters; writing the programme plans for research and development and manufacturing of the security subsystems for the Minuteman Weapons system; and as Applications Engineer for Hewlett Packard, designing digital data equipment.

In 1966 he tired of the California rat race and moved with his wife and two young daughters to Canberra where he began working with CSIRO. He patented an animal tracking device and designed a tropical plant growth chamber. He then moved on to selling computer systems for Control Data Corporation.

**BILL & WILSON**

VK6XA

**PERTH
WESTERN AUSTRALIA**

Zone 29

Radio	Confirming	QSO	of
at	Ur sigs	on	Mc SSB CW

**Formerly: W8YMJ, W6NVJ, JASAN,
DL4QW, F7DW, VK1WT, VK2AWT**

WILLIAM TAYLOR
27 DELTON WAY
ATWELL W.A. 6164

Sadly, his wife died the following year.

He married for a second time, and the country life beckoned. After a couple of years on a mixed farm near Young, NSW, he moved the family over to Perth. There were now five children and we all got used to having an antenna of some description in the garden or on the roof wherever we moved to next. Unfortunately, this sometimes meant that a large, attractive and shady tree might lose a branch if it happened to be in the way. And of course, as most of Bill's contacts were with amateurs on the other side of the world, I had Morse code and lights on when it was really the time for sound sleep!

On the air Bill made a number of great friends, in particular those who favoured the CW mode. However, contact with them became more and more difficult due to hearing problems and arthritic hands. It was a sad day in 2003 when he realized he could no longer engage in his hobby, after fifty five years as a licensed amateur.

Bill leaves behind a loving family and friends who admired him for forging ahead despite the many disadvantages and setbacks he had to contend with all his life. His good sense of humour helped us all.

Submitted by his wife Margaret.

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Analog audio is modulated to a digital signal and transmitted in the digital mode signal by the D-STAR radio.



Internet connection*

The Internet gateway allows linking of D-STAR repeater sites over the Internet. You can uplink to your local repeater and downlink from a remote repeater, even from a foreign country!



Application 2

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HELLO



Call sign identification
and short data messages
are available.

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- DV mode (4.8kbps)
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With a GPS receiver connected, you can send your current position, and receive, process and display position data from the received station. (IC-2820H**) Beacon to the DPRS/APRS® Network, and you'll be on the map with "UI-ViewB®".

* Some restrictions may apply depending on specific countries' regulations.

** With optional UT-123 D-STAR PCB and GPS.



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Application 5

IP camera (DD mode)

You can transmit live images in DD mode and watch real-time images from a remote location.



Application 4

Internet access (DD mode)*

In DD Mode at 128 Kb/s you can access the Internet to other D-Star zones in Australia or anywhere a D-Star system is connected...even Kazakhstan! Connect a PC to an ID-1 and you can browse D-Star system websites, local info-kiosks, check e-mail, FTP...just about anything. D-Star is open and non-proprietary, just wait for the next application...you'll be ready.



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1. "D-STAR only works on 1.2 GHz."

FACT

Low-speed DV D-STAR voice and data works just fine at 144 and 430 MHz. 1.2 GHz supports the bandwidth needs of high speed DD data. Choose the technology that satisfies your needs.

2. "There's no difference between D-STAR and packet"

FACT

Even D-STAR's lowest speed is competitive with the highest-performance packet systems available today. D-STAR's simultaneous digital voice and data at 4800 bps is beyond the capability of any packet technology. Hi-speed D-STAR systems are ten times faster than the highest packet speeds.

3. "D-STAR is no different from IRLP or Echolink®"

FACT

VOIP systems like IRLP and Echolink® are only capable of routing voice signals. They don't support data exchange at any speed. Calls targeted to a specific user are not possible by any amateur technology except D-STAR.

4. "D-STAR is just a digital party line!"

FACT

The ability of D-STAR repeaters to route data and digitized voice worldwide sets it apart from a single party line. Sophisticated D-STAR controllers and gateways implement modern telecommunications functions in an amateur package.

5. "D-STAR is a replacement for broadband home Internet"

FACT

Truly a fantasy! D-STAR can connect a user to the Internet, true, but all of the amateur radio restrictions on commercial activity still remain in place. D-STAR will provide the tools for a lot of great amateur innovation, but it's not intended to replace Internet providers.

6. "D-STAR won't work with APRS®"

FACT

Except for the ID-1, All D-STAR radios can do DPRS when connected to a GPS receiver. The exciting thing is, with D-STAR being an open protocol, software experimenter, Pete Lovell AESPL, has written a program that interfaces DPRS to APRS® and sends the converted APRS data to your APRS IS gateway. This means you can see all the new D-STAR stations on UI-View®. With the "D-STARTNC2" application, any D-STAR repeater with a gateway can send DPRS CAPRS data to the APRS Internet system. The D-STAR team will be implementing this interface in Australia.

7. "I'll be locked into Icom equipment forever."

FACT

While Icom is the first manufacturer to support D-STAR, any manufacturer or amateur can use the JARL standards to create equipment - transceivers, repeaters, and gateways - compatible with the D-STAR system. As the D-STAR system grows, look for other manufacturers to join the fun.

VK2

Tim Mills VK2ZTM

c/- vk2wi@ozemail.com.au

Clubs

The Blue Mountains ARC held their recent 'Winterfest' on a nice spring day, Saturday the 1st of September. BMARC Publicity Officer John VK2QN thanks the traders, exhibitors, club members and visitors for making it another successful day. Plan now for the 2008 Winterfest.

This month it will be for amateurs in southern VK2 to enjoy the annual Riverina Field Day weekend, hosted this year by the Wagga ARC at their club rooms. This annual event which now alternates between the Twin Cities ARC and Wagga, will be held over the weekend 27th and 28th October. On Saturday evening there will be a dinner at the club rooms and Sunday from 9 am there will be the usual flea market and a number of traders. The WARC club rooms are in Small Street. Check page 37 of last month's AR for some background. Originally this event was the South West Zone Convention, which was hosted by a different Riverina town each year. It was started in the early 1950s by (the late) Jim Edge VK2AJO.

Repeater groups should check out last month's AR on page 5 or the WIA website re changes to repeater and beacon coordination. The VK2 Regional Advisor is Brian VK2WBK.

You may have noticed that the MNCARC has a Radio Expo arranged for Sunday 20th January 2008 at Coffs Harbour.

Oxley Region is looking for candidates for Foundation or Standard training courses which they conduct at Wauchope and Port Macquarie. Postal contact at PO Box 712 Port Macquarie 2444.

The Illawarra ARS now meet at the Industry World Visitor Centre, Springhill Road, Coniston on the second Tuesday evening. Check out their new look web site www.iars.org.au

The Central Coast ARC is planning for the 2008 Field Day in February. The club invites comment on any possible changes that could be incorporated into the annual event. Information on examinations offered by the club can be obtained from Greg VK2GRJ on 02

4329 0614 or email at education@ccarc.org.au

Tamworth RC Inc meets on the first Friday evening at 7.30 pm at the Tamworth/Oxley Scout Hall, Carthage and Hall Street.

Waverley ARS has regular exams - check out exams@vk2bv.org.

WICEN (NSW) Inc held their AGM last month. The major event late this month is the Hawkesbury Canoe Classic. For contact with WICEN - call the Duty Officer 0408 397 217. Or email operations@nsw.wicen.org.au

ARNSW

Planning continues for the final Trash and Treasure event for the year. This will be in the form of a mini field day - similar to the event last May - and will be on Sunday the 25th November at VK2WI Dural. It will incorporate a club conference and the end of year party for members and visitors. Traders and exhibitors are being sought and arranged. Contact ARNSW Secretary - Brian VK2TOX for details and offers.

There may be a couple more ARNSW arranged Foundation Licence examinations this year and ARNSW is including a year's membership for each candidate. Contact the office by telephone 02 9651 1490 or 9689 2417, email vk2wi@ozemail.com.au, FAX 02 9651 1661 or postal PO Box 9432 Harris Park 2150. Website www.arnsw.org.au

By early last month the new boundary fencing had encased about half the property. The previous fence at the front of the property had been erected in the 1970s under the supervision of Dave VK2BDT who had rounded up a gang of 'amateur' farmers and put their skills to the task. Iron based products have a limited life and the new fence - using galvanized posts - should have a better life. So far the new fencing has been on the easy part of the property which was largely on flat ground. The majority of the project has been undertaken by Dural Officer Brian VK2WBK. Much of the remaining portion is in rough terrain and help would be appreciated by Brian.

Coffs Harbour Radio Expo

Hosted by the Mid North Coast Amateur Radio Group

Sunday 20th January 2008

St Johns Church Hall,

Mc Lean Street Coffs Harbour

8.30am Start

Trade Displays, Disposals, Door Prizes, Club Displays, Home Brew Displays, Satellite tracking, Tower Displays

**Special new equipment
low prices on the day only**

Yummy Hot food and cold drinks Entry \$5.00 per person

More info on www.mncarg.org or phone

Gary Ryan VK2ZKT 02 66552990

VK2WI

As we come out of the sunspot minimum, the lower HF frequencies continue to be variable in the coverage of the morning session from VK2WI. The 5 MHz VK2RWI linking frequency is being used by more listeners to overcome the difficulties in the country coverage for either direct reception or repeater relaying. There were difficulties in incorporating the 5 MHz transmission into the relay of the VK1WIA segment due to identification required by the licence conditions. These are that the transmitting station must identify and pause at intervals of 10 minutes. A way has been found and it becomes the task of the duty Engineer to pick out a suitable point in the National presentation to insert the required ident. Some listeners report reception of the 60 metre signal weaker than they expected. In some cases reception improves by using a random length wire rather than a dipole cut to a frequency like 40 or 80 metres. ACMA recently amended the operating frequency for VK2RWI on 60 metres by moving it up 1.5 kHz to place the carrier on 5425 kHz.

Last month the 23 cm VK2RWI repeater failed due to a power supply problem. When investigated by station engineer Mark VK2XOF, it was found that the transmitter side was drawing excess current for a meagre 4 watts output. The system is based on a pair of transceivers so it was practical to swap

over the Tx - Rx functions, giving it a new lease of life at 15 watts. It has been in service for more than twenty years so it is entitled to a rest. There is a small and dedicated group of users revealed by the callback log. Unfortunately 23 cm operation appears limited due to little available equipment.

Mark also advises that a new 23 cm beacon is in the construction stage to replace the present system, which is the second generation unit, and it has also done sterling service. The present unit has about 2 watts in the FSK mode to an Alford Slot antenna with horizontal

polarization. Its replacement will be closer to 20 watts in the CW mode. Check out VK2RSY on 1296.420 MHz.

This month is the annual JOTA operation and VK2WI will provide a play out of the opening address early on Saturday afternoon. The exact details will be given in the weekly news. Stations that will be operating may care to let the news compiler - Erik VK2MAN - know of their schedule or requests for assistance by an email to "VK2WI NEWS" at vk2wi@ozemail.com.au

73 - Tim VK2ZTM.

Wagga Amateur Radio Club hosts Riverina Field Day

The Riverina Field Day will again be hosted by the Wagga Club over the weekend of October 27 and 28 at the club's rooms in Small St. Wagga Wagga.

The Field Day commences on the Saturday evening with a dinner at the clubrooms. On Sunday, doors open at 0900 with the usual flea markets plus a number of traders including Icom through Wodonga agent Henry Radio.

This Field Day has a long history dating back to when it was known as the South West Zone Convention. Then it was hosted by many towns in the Riverina such as Griffith,

Deniliquin, Young and even Grong Grong. This very popular country hamfest is nowadays hosted on alternate years at either the Twin Cities Radio & Electronics Club in Albury or the Wagga Amateur Radio Club.

So, keep this weekend free and plan to visit Wagga Wagga, City of Good Sports and Garden City of the South to catch up with old mates and make new ones.

VK3

Amateur Radio Victoria News

Licence restructure 2nd anniversary

Amateur Radio Victoria will next month mark two years of involvement in Foundation Licence classes and assessments. Its sponsored assessors will have taken part in a total of 30 assessment sessions.

It began with what was called the 'Melbourne Trial' of the then new

assessment system and involved many other assessors who attended to learn.

The Amateur Radio Victoria 'class of November 2005' had nine enrolled. Our instructor Murray Lewis VK3EZM had a daunting task of preparing to teach without copies of the Foundation Licence Manual being available.

Airmailed in was a set of the RSGB 'Foundation Licence Now' book that

Website: www.amateurradio.com.au

Email: arv@amateurradio.com.au

Jim Linton VK3PC

was distributed to those enrolled in the class with instructions about what pages to study and those to ignore that were purely related to British regulations.

Murray VK3EZM then had some confidence that the candidates were adequately prepared for the course. The late Chris Jones VK2ZDD did his utmost best and the Foundation Licence Manuals arrived the day before the class began.

News from...

Now two years later, Amateur Radio Victoria will have played its part in helping 200 individuals become radio amateurs through its training sessions and associated bridging courses leading to licence upgrades.

The next weekend training and assessment weekend is 20 & 21 October. Enrolments are now open. Do you know someone who could be interested in becoming a radio amateur and learning something new?

For inquiries, to enrol or obtain the Foundation licence manual for \$19.50, contact - Barry Robinson VK3JBR 0428 516 001 or arv@amateurradio.com.au

Collaboration gets results

A recent example of the cooperative involvement of Amateur Radio Victoria is the new communications tower at Arthur's Seat on the Mornington Peninsula.

The project began seven years ago when community radio station 3RPP needed a new tower, and it faced a number of hurdles including bureaucratic red-tape that at one stage looked likely to put the project in doubt.

In giving its support, Amateur Radio Victoria (WIA Victoria & WICEN Vic) helped to strengthen the lobbying efforts of 3RPP by enhancing the tower project so it was clearly an important community infrastructure.

Also joining the campaign with moral support were the Volunteer Coastguard and St John Ambulance leaving the local government decision makers with strong justification for giving it their approval.

A lot of hard work including fund raising for the \$130,000 project was carried out by the station volunteers with support of the local community and the Bendigo Bank. The Federal Government was also among those who provided financial assistance.

At the invitation of 3RPP Station Manager Maria McColl, it was my pleasure to join the official launch of the 45.5 m tall tower on 28 August. The 3RPP gang is very appreciative of support provided through Amateur Radio Victoria's Peter Mill VK3APO.

The VK3RPU repeater 439.825MHz relocated to the new tower is receiving exceptional reports.

e-mentoring begins

Our members who have become radio amateurs since November 2005 are now being provided a new membership service which we call e-mentor.

Mentoring includes all forms of sharing of skills and knowledge and a helping hand when required.

The current F-Troop Net controllers Ross Pittard VK3FCE and Terry Murphy VK3UP have volunteered to answer questions through the service via the email address mentor@amateurradio.com.au

The F-Troop Net held at 11.05am each Sunday through the Mt Macedon 2 m repeater will continue to provide an on air opportunity of new licensees.

Membership renewals

The need for further modifications to our office computer systems has delayed the issuing of some membership renewals. We apologise for the inconvenience.

Recently about 100 renewal notices were issued. Membership of the statewide organisation costs \$30 Full or Associate and \$25 Concession, for two years. Total membership is more than 600 and new members are most welcome.

Plan ahead

Centre Victoria RadioFest at Kyneton, less than an hour from Melbourne, Ballarat and Bendigo, on Sunday, 10 February, 2008.

Major traders, second-hand market, club corner, come 'n try activities and interesting mini-lectures.

For sales tables and car-boot spaces contact Nick Angelo VK3UCK 0448 653 201 or vk3uck@hotmail.com

This major event is organised by Amateur Radio Victoria, Central Goldfields ARC and Midland ARC. More details at the website [radiofest.amateurradio.com.au](http://amateurradio.com.au)

Eastern & Mountain District Radio Club

40th Birthday Celebration

On Sunday 26th August, the EMDRC held a lunch at the Knox Club in Wantirna to celebrate the 40th birthday of the club. The club was formed

following the Dandenong Ranges Bush Fires of 1962 where the small group met at a private house. During 1966 the group met and formed the EMDRC, and as they say the rest is history.



Bob VK3AIC



Carl VK3EMF

The Luncheon was kept in order by Carl VK3EMF, the voice of Sunday's club net VK3BNW, and the guest speakers included Bob Duckworth VK3AIC, Tony King VK3FBD and Geoff Atkinson VK3YFA, all life members of the club. The speakers gave details of the foundation of the club and remembered many of the now silent keys that were instrumental in the foundation and success of the club. The luncheon was attended by 65 members of the club.

VK3REC repeater

The VK3REC repeater controller has recently been upgraded. Amongst the many new features of the repeater is the ability to announce upcoming club functions along with a voice announcement of the call sign and the time. The club repeater operates on 147.175 MHz.

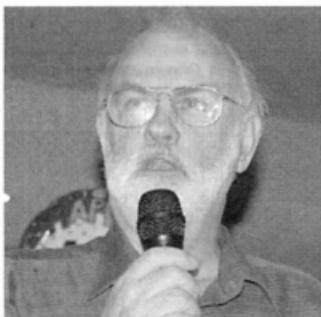
Club Net

The new Sunday morning transmission of the WIA broadcast will now be rebroadcast at 0930 Sunday mornings on the VK3REC repeater. This will be followed by the EMDRC club net at 1000. The new time slot of 0930 will enable those who have family commitments to listen to the WIA news before the day's activities get under way. Members and visitors are welcome to check in to VK3BNW at 1000.

2007 Oceania DX Contest: Saturday October 6th to Sunday October 7th

The EMDRC will be operating a portable station at Kurth Kiln, located near Gembrook, and we extend an open invitation to all members who wish to participate.

We have the camping area booked in addition to the huts for the Club's use from the 4th till the 10th October: any one that wants to camp there may do so or limited accommodation is available in the huts. We will most likely set the station up in the huts, and if it is cold or wet we can have a fire inside the hut. The station will be located in the "caretaker's cottage" and there are also a number of huts with comfortable accommodation



Tony VK3FBD



Geoff VK3YFA

available on site at no charge. There are also excellent camping facilities for those who would like to bring their own camping gear.

The Oceania DX contest has been around for many years in early October and was known previously as the VK/ZL Contest. Activity has increased over the last three years due to a huge promotional effort by a joint Australian and New Zealand Committee. The 2007 contest is on the following dates:

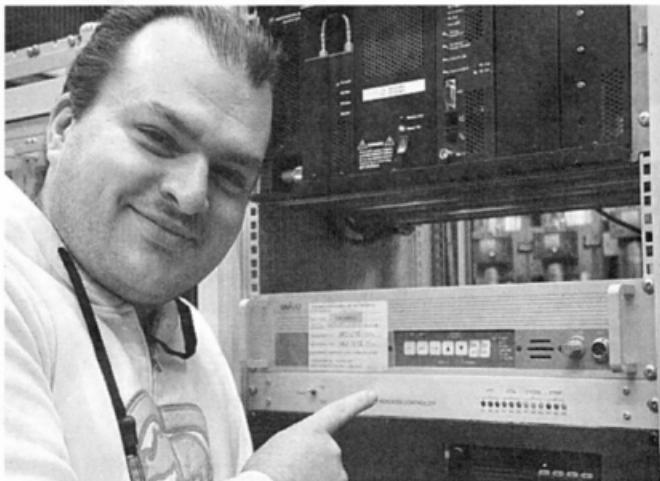
PHONE: 0800 UTC Saturday 6 October to 0800 UTC Sunday 7 October 2007

We would like to have some members who are able to help setting up some antennas a day or two before, it would be ideal if we can operate on all the bands, we hope that as many club members could come along and help with this Activity.

If you would like to attend the event could you please contact vk3ark@optusnet.com.au

The Parks web page for Kurth Kiln is: http://svc015.wic028p.server-web.com/lpark_display.cfm?park=238

The friends group is: <http://home.vicnet.net.au/~sofkk/>



Bryan at the new controller

News from...



QTC
First Published July 1921 "Of, By and For the Amateur"
VK4
NEWS FROM FOR QUEENSLAND RADIO AMATEURS

J R "Rossco" Anderson, VK4AQ

As you read this column, the Townsville Amateur Radio Club's biennial Amateur Radio Conference will have been and gone, quite successfully I am sure. When Gavin VK4ZZ and his willing band of helpers from TARC are involved in an activity, it always goes well. Look for a full report on proceedings in next month's column.

One of the highlights for last month was, of course, the International Lighthouse and Lightship Weekend which, by all accounts, was another success story. I most certainly had a wonderful time of A/R and camaraderie



The Classy Grassy Hill Group. The operators dine out at the Cooktown RSL Club:
Back (L-R) Greg VK4FGBS, Jeff VK4BOF, Mike VK4MJK, Rossco VK4AQ, Dennis
VK4JDJ and Wayne VK4ARW. Front (L-R) Wilf VK4NZ, Billy VK4WL, Stan VK4MFA,
Val VK4FAIR, Alan VK4HBN, Gary VK4WT



Jeff VK4BOF and Alan VK4HBN work hard at getting QSOs



Ross VK4AQ getting Greg VK4FGBS into the swing of ILLW.



Much mirth and frivolity interspersed the serious activity at Cooktown 2007.



The Happy Family outside the Shack at Cooktown ILLW 2007.

at Grassy Hill in Cooktown, upon which I report elsewhere in our magazine.

Not a lot of submissions from around VK4, unfortunately, but the input is ever so slowly starting to increase. I urge all clubs to get me a little news of their goings on by the sixth of each month, please.

SCARC-WICEN

At 0815 on Friday 24 August 2007, the North Coast WICEN/SES Specialist Communications Unit was activated by a request from Emergency Management Queensland. The Suncoast region received unprecedented amounts of rain causing extensive flooding in the area.

We activated the SCARC-WICEN caravan in its ideal position at Dulong. Additional operators were sent to EMQ HQ at Caloundra, Maroochydore and Tewantin SES Units. We were finally stood down at 1830 hrs, but requested to stay on alert.

About seventeen SCARC/WICEN personnel responded with Hervey Bay and Maryborough operators also brought to the ready.

As a timely reminder, the VK4 WICEN Secretariat consists of representatives from Far North Region, North Region, Central Region, South East Region, South West Region, Moreton Region and Sunshine Coast Region.

The Secretariat encourages clubs, who have not done so already, to appoint a WICEN coordinator to their executive ASAP. The Secretariat's mission is to represent club appointed WICEN coordinators at the State level, and ultimately to the WIA at the Federal level. It is the Secretariat's intention to foster information sharing and encourage the standardisation of procedures throughout Australia.

The WICEN Secretariat is affiliated with the WIA. If any clubs require assistance or advice on how to become involved with WICEN, please contact the Secretariat via email: wicenqld@wia.org.au.

President's Luncheon

WIA secretary Ken Fuller has advised that the venue for the upcoming President's Luncheon to be held on

Saturday 13th October, will be the Blue Room at the Geebung-Zillmere RSL Club, which is conveniently located across the road from the Geebung railway station on the Caboolture line. Bus service 235 from the city also stops outside the club.

A long walk

Lyn Battle VK4SWE reports that Jeff Johnson VK4XJJ, who recently completed a four month walk from Spencer Gulf in South Australia to the Gulf of Carpentaria, spent a very pleasant couple of days on Sweers Island with her and OM Tex after his arduous journey. The local charter company Aero Tropics donated seats on the mail plane for Jeff and his brother Bill VK2FWGJ, so they could come across for a night and make some radio calls back from this QTH of OC-227.

Surprisingly, Jeff wanted to walk around the island to see all the sights! One would have thought he had had enough of walking by this stage. They also took a metal detector with them but I have not heard any stories of locating any buried treasure from days of yore, hi.

Lyn was able to present Jeff with a cheque arising from donations sent to her from local amateurs and staff at the Sweers Island Resort who wished to support Jeff's cause, the Deaf and Blind Association.

There are Rigs and there are RIGS!

It pleases me that Cheryl VK4FRYL (Feral Cheryl?) has finally given in and allowed me to do a little item on her and her unusual rig. We, as amateurs, usually associate rigs with the FT or IC or TS variety but hers is a little different, as can be seen in the accompanying photograph. Cheryl works at Phosphate Hill as a truck driver (as she rather quaintly refers to it). She is in a fly in/fly out roster from



Cheryl Goldfinch VK4FRYL with her rig.

Townsville on a 13 day on and 8 days off roster. Her shifts are of 12 hours duration. The dump trucks have a gross weight of 138,344 kg. Cheryl's OM is John VK4FNQ, whom I'm sure most VHF aficionados would have worked at one stage or another. In coming months, I hope to be able to do snippets on Dave VK4ZDP and Bill VK4FW in their rigs. I am also hoping for something from Lyn VK4SWE in her new Maritime Mobile rig, where the fish just want to jump straight into the boat!

The Brisbane Amateur Radio Club (BARC) advised that they have booked the Community Hall, upstairs and downstairs, at the Mt Gravatt Show Grounds for BARCFEST 2008. This popular event is scheduled for the Saturday prior to Mother's Day.

In their club newsletter, QSP, a synopsis of a recent talk given by the Heart Foundation was presented. I thought that this was a great club initiative, being the recipient of six coronary and one carotid bypass myself. None of us are getting any younger and it is beholden on all clubs to arrange discussions of this nature in my humble opinion.

ALARA 32nd Birthday Party

Pam VK4PTO organised a lovely party for local lady amateurs at Nerang recently. Ken VK4KD, reporting in the South Coast Amateur Radio Groups

excellent monthly newsletter, reports that a grand time was enjoyed by all in attendance, much of it arising from Pam's OM who conducted some really hilarious sessions with his camera.

Ken also reports that the Mid North Coast AR Group is holding a Radio Communications Expo at St John's Church Hall, Coffs Harbour, on Sunday, 20th January 2008, so those of you in the area, jot this down in your diaries.

The Art of "Spin"

How could I not include this gem, submitted by David VK4KIX and reproduced in TARC's monthly newsletter, Backscatter.

Judy, a professional genealogical researcher, discovered that Hillary Clinton's great-great-uncle, Remus Rodham, a fellow lacking in character, was hanged for horse stealing and train robbery in Montana in 1889.

The only known photograph of Remus shows him standing on the gallows. On the back of the picture is this inscription: "Remus Rodham; horse thief, sent to Montana Territorial Prison 1885, escaped 1887, robbed the Montana Flyer six times. Caught by Pinkerton detectives, convicted and hanged in 1889."

Judy e-mailed Hillary Clinton for comments. Hillary's staff of professional image adjusters cropped Remus's picture, scanned it, enlarged the image, and edited it with image processing software so all that is seen is a head shot.

The accompanying biographical sketch is as follows: "Remus Rodham was a famous cowboy in the Montana Territory. His business empire grew to include acquisition of valuable equestrian assets and intimate dealings with the Montana railroad. Beginning in 1883, he devoted several years of his life to service at a government facility, finally taking leave to resume his dealing with the railroad. In 1887, he was a key player in a vital investigation run by the renowned Pinkerton Detective Agency.

In 1889, Remus passed away during an important civic function held in his honour when the platform upon which he was standing collapsed.

And that's how it's done, folks!

Tablelands Radio Group Cooktown ILLW 2007

J.R. (Ross) Anderson, VK4AQ

Given that he was threatened with being attached to the halyards and strung up the antenna tower by certain parts of his anatomy for forgetting to bring the tarpaulin for our "shack" last year, I am happy to report that Dennis VK4JDJ was to ensure no such 'endorsements' were entered into his logbook this year.

Thus began the planning for the International Lighthouse and Lightship Weekend (ILLW) at Cooktown this year. Almost from the time the event concluded last year, planning had begun for 2007; such was the growing enjoyment from these weekends. As far back as January plans were on the drawing board to improve the Tableland Radio Group's (TRG) performance at ILLW 2007. These plans ranged from better rigs and operating environment, enhanced antenna performance and a heightened social activity. To simply say that we met these goals would be an understatement.

As has become the custom over the last three years amateurs from Innisfail, Cairns and the Atherton Tableland, together with xyls and family, formed up just to the north of Mareeba for the journey to Cooktown. The convoy comprised ten vehicles and the widest assortment of 'cargo' attached to roof-racks, trailers and vans was to bring some rather curious expressions from passers by. Convoy Master Wayne VK4ARW established us all on Ch 50 and set off at a cracking pace in his Nissan X-Trail/Caravan combination just after 9 a.m. First stop Rifle Creek for a cuppa and fresh scones with strawberry jam and cream provided by Bev, XYL of Rossco VK4AQ. Lunch and a fuel stop at Lakeland Downs and on to Cooktown by mid afternoon. The road is sealed all the way to Cooktown these days and our convoy, spread over about a kilometre, sat on 100 kph all the way. There are even two quite extensive stretches where the speed limit is set at 110 kph. I'm sure many of our more elderly readers' eyes will widen when they read those last two sentences, especially when they think back to how it used to be hi.

Safely booked into Van Park and motel, a bit of a nano nap and it was time for the TRG Dinner at the Cooktown RSL where 27 of us sat at one long table. To say that our operators, all decked out in their black tuxedo t-shirts, white shorts and black and white thongs, drew a few bemused stares from the locals would be the second understatement of the article. We did, however, have to live up to our (self appointed) title of the "Classy Grassy Hill Group." With a good meal — mainly freshly caught and pan fried barramundi — under our belts it was a couple of drinks, plenty of merriment, some rag chewing and off to bed before 11 p.m. This author has always believed in eating beef when in beef country and fish in coastal reef territory. Cooktown to me has always been somewhat of a dilemma, however.

Group Leader Mike, VK4MIK, having advised everyone the night before that he wanted them setting up the operating site on Grassy Hill, the location of the Cooktown Light, by 8 a.m. sharp had everyone hopping through hoops by 7.30 a.m.

The first task was to get the RDGX multi-stage extruded tower, designed and built by Gary VK4WT, into position and guyed, and believe me, there were some guy ropes attached. At one point, Gary was heard to yell "OK, you blokes, grab a guy each." Well, dear readers, you don't need me to tell you what happened next, much to the consternation of Gary!

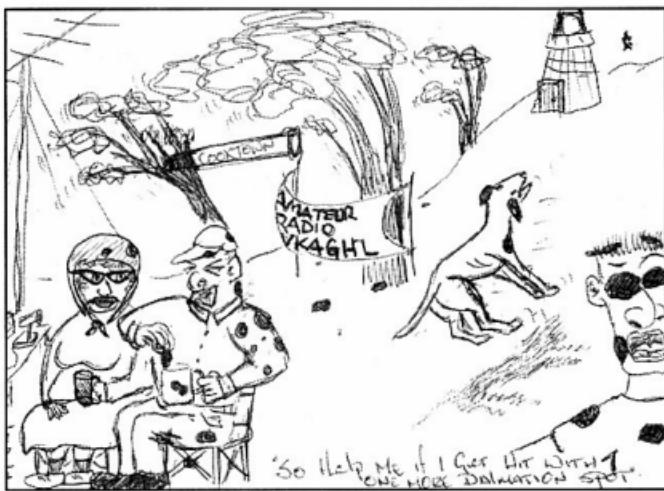
Much mirth and frivolity later we managed to get Wayne's, VK4ARW, monster of a 20 m 3 el Yagi monobander and rotator affixed to Gary's tower. Wayward trees and Murphy caused some anxious moments but eventually the antenna was in situ and testing indicated it was ready for some serious

DXing. Because of the turning circle of this big Yagi we had to relocate the mast elevating the 40 m dipole a bit further away from the operating station. This posed no problems as far as the feeder went but the feedline from the anemometer to its transponder was too short and we were not able to accurately read wind speed for the entire weekend. Suffice it to say that the anemometer had a good work out on its own and looked quite impressive to passers by and tourists. We were then able to pretty much send Mr Murphy packing.

Gazebo and wind breaks in position, operating stations functioning well on battery power and all systems showing green it was almost time to start, at 10 a.m. promptly. Importantly the cooking station was well protected from the incessant high wind and coffee was soon on the go.

At this juncture, Dennis VK4JDJ, Mike VK4MIK and Rossco VK4AQ departed for Cooktown's Anzac Park to join in the Vietnam Veterans' Day service where they laid a wreath on behalf of the TRG and joined in a simple but touching service organised by the Cooktown RSL and Vietnam Veterans' Group. It was the first time Dennis had attended a remembrance parade or worn his medals since returning home from Vietnam and he found the experience of attending the gathering with a couple of close mates quite settling.

During the afternoon and evening a steady stream of contacts were made with Australian Lighthouses in the main but we did manage a couple of overseas lights during the course of the 24 hour period. At one point during the afternoon we created a smallish dogpile with stations trying to get our unique VK4GHL (Grassy Hill Lighthouse) callsign. A highlight in the list of contacts was ex-Lighthouse Tender Cape Don, by CW and SSB and now under restoration by the Maritime Museum in Sydney. During the early hours of Sunday morning a path into Europe opened and we managed QSO's with many countries much to the delight of local event organiser Mike. Around piccinni daylight Rossco VK4AQ nabbed a number of CW contacts on the Gnarly



Net on 80m and followed up on them during the SSB session later on. Between about 2 a.m. and 5 a.m. it became very quiet, radio wise, despite the best efforts of Mike and Rossco. However it was definitely not quiet as regards wind and Rossco was heard to say on more than one occasion that it was windy enough to blow the spots off a Dalmatian dog.

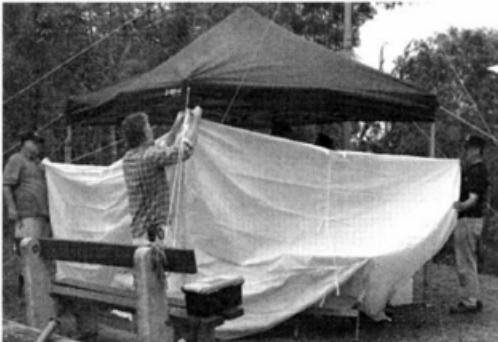
At 8.30 a.m. on Sunday morning yawning operators together with their

XYLs/families began arriving on the hill to the smell of French toast, sausages, eggs, bacon, tomato au-gratin, pan fried mushrooms, fried onions and baked beans being prepared by Bev, Dennis and Rossco. This seemed to go down fairly well. Probably too well as we missed about 30 QSOs because all the operators were too busy eating!

However, readers, it was not all HAM Radio for the entire weekend. Local



By VK4GBS



Building the Station.



Growing an Antenna Farm

operator, Pat VK4MUY, had organised a day out for the ladies on Saturday which saw them enjoying a trip to the local markets, Old Bank Museum, Craft Shops, morning tea provided by locals Pat VK4MUY and Dave VK4FUY, Botanical Gardens and the main town museum. The ladies enjoyed a lovely lunch at the Powerhouse, a part of the Botanical Gardens. Many thanks to the Bendigo Bank for providing a range of gifts for the ladies and also to Jenny, XYL of Gary, for the presents of handmade jewellery she made for all the XYLs attending.

Sue, Dana and Sandy, all Tablelanders who don't get a lot of opportunities to visit the coast, made the most of the dark hours by fishing from the main wharf. They caught themselves a nice feed of fresh fish and even topped it off with a couple of rather nice mud crabs which they caught in their hired dilly pots. If only one of the ladies had not come running back excitedly shouting "I've got crabs!"

One thing we must ensure before next year, is the refresher course in signage identification in National Parks for Keron, xyl of Wayne — especially signage saying Ladies and Gents! And I always thought that Fire Engine Red was the reddest of red. I now know there is a much brighter shade hi.

A highlight of the weekend was a visit by Bill Carter and his sister Ruth who visited us on Saturday afternoon, coming up the coastal road from Cairns. Bill has a long relationship with Australian

Lighthouses and over the years has lent his support and encouraged radio clubs and groups to participate in the annual ILLW event. His grandfather was the lighthouse keeper at Cooktown from 1911 – 1918 and when he died whilst on the job there, his son took over until another keeper could be found. In an address on the Sunday morning Bill congratulated the group on its efforts over the last three years and mentioned the historical significance lighthouses played in our country's development and emphasised the need for preserving these beautiful old structures for future generations for that very reason. He went

on to say that the Cooktown gathering was one of the largest he had seen, or even heard of, taking part in an ILLW.

Another innovation for this year's ILLW at Cooktown was the "goodies bag" put together by Rossco and given out to the attending operators. Much of the content was prepared by Rossco himself but he does acknowledge the kind generosity of sponsorship from the Bureau of Meteorology, Kenwood Australia, ICOM Australia and the very kind donations from Gary VK4WT and Jeff VK4BOF of RDXG Communications who have recently opened an Atherton Tablelands agency for Vertex Standard

On the Road in Convoy

By "Crunch" (xyl of WIF VK4ZBZ)

*What a mob of yokels
And bunch of Daisy-Mays,
Driving up to Cooktown
To stay a couple of days.*

*Roaring on through Lakeland Downs
Kicking up the dust,
Radios all squawking
Communications are a must.*

*'Cos unless we stick together
We'll end up with faces red,
That's why we don't rely on
Directions from 'ZNZ.'*

*On the road in convoy
Strung out along the track,
Five vehicles up front of us
And five strung out the back.*

*'ZNZ' stuck in the middle
A safe place for him to stay,
Wouldn't want him out in front
Leading us astray.*

*Calling CQ CQ CQ
On frequency and bands,
We'll activate the lighthouse site
And wake up all you HAMS.*

*So tune in your radios
And quickly scan about,
If you're listening out for us
We'll give you all a shout.:*

Australia. Thanks also to Dale VK4DMC for his kind contribution.

VK4GHL statistics for the 24 hour period are as follows:

Australian Lighthouses worked: 47

Overseas Lighthouses Worked: 3

Total contacts made: 170

Nationalities worked: New Zealand, Russia, Poland, Siberia, Japan, China, Korea, Moldova, Italy, Germany, United Kingdom, Sweden, Czech Republic, Ukraine, Lithuania, Norway, Netherlands and Spain.

Grassy Hill Lighthouse was the most northern lighthouse operated in Australia and it seems to us to have had the highest number of operators in attendance and operated continuously from before 10 am Saturday 18 August until 1015 am Sunday.

Amateurs attending Cooktown ILLW

2007 were Mike Patterson VK4MIK, Dennis Bauer VK4JDJ, Bill Lochridge VK4WL, Gary Gregory VK4WT, Wayne Richer VK4ARW, Wilf Booth VK4ZNZ, Greg Scott VK4FGBS, Alan VK4HBN and Val VK4FAIR Whiting, John Gielis VK4JKL, Jeff Cochrane VK4BOF, Cooktown locals Dave VK4FUY and Pat VK4MUY Edmunds, Stan Aldridge VK4MFA and Ross Anderson VK4AQ. Particular thanks must go to Mike, Wayne and Dennis for their behind-the-scenes efforts to ensure the whole operation only gets better every year.

In the wash-up of this year's event it was generally agreed that everyone had a ripper time, the social activity was great, humour, much of it spontaneous was never far below the surface and operating conditions, high winds excluded, were ideal. The constant good will and wit of Alan, Wilf and Stan typified the weekend.

Pity about Billy's snoring every time he managed to score someone's vacant "gobble up" camp chair 'though!

Unfortunately, the whole event has probably grown a little too large — logically and environmentally — and, regrettably, there was insufficient space to accommodate the numbers we had this year. We will need to rethink our activities somewhat to reduce the traffic on Grassy Hill as one of the restrictions placed on us by the Cook Shire Council was that we did not impede traffic flow to the popular tourist lookout from which Captain Cook once gazed seaward so long ago.

Twilight barbecues around the pool and no 'big breakfast' will be the first amendment to the 2008 itinerary. Downsizing seems to be the catchword of today, doesn't it?

VK5

Christine Taylor VK5CTY

Adelaide Hills Amateur Radio Society

AHARS continues to grow. Currently we have 141 members. Each meeting we have one or two new members join. This is great, and it means that we can attract good speakers to our meetings.

Last month we had a panel of three speakers talking about the GNR radios and how they have worked for them. We had someone from the Metropolitan Fire Service, someone from the Country Fire Service and a representative of the SES, Emergency service.

The speakers addressed both the technical aspects of GRN and the practical, in the field use of the radios.

After the many and varied 'stories' we had heard it was a pleasure to hear how they actually functioned on site.

There were many questions at the end of the talks and the club was glad to make clear to the speakers of the role WICEN can play in assisting the different emergency groups to communicate with

each other even when they do not share a common frequency.

During the meeting, the last of the two-tone oscillator kits were distributed and a number of possible future projects were discussed.

If you are in Adelaide on the third Thursday of the month, please join us at one of our meetings. Contact John VK5EMI or David VK5AMK for more details. Both are QTHR the callbook and phone book.

Fleurieu Peninsula Group

Another lovely day was enjoyed by the 30 people who attended this luncheon and the coffee and cakes that followed.

The date of the luncheon did clash with the ALARA Contest but this did not deter most of the YLs from staying on and enjoying the whole day. One couple did go home immediately after the luncheon so they could get busy on the 20 and 40 metre bands looking for the DX stations. We hope they made lots of contacts and enjoyed the really excellent propagation.



Bevan VK5TV, Noel VK5VT, Graham VK5KGP and Craig VK5ZAW

As always the talk was a mixture of amateur radio and general topics, with

everyone having something to say. We meet again in three months time.

VK6

Northern Corridor Radio Group Inc Hamfest 2007

This year was the 21st Northern Corridor Radio Group Hamfest, and did we come of age! With a lot of inspired work by Hamfest Co-ordinator Phil VK6ZPP a truly special show was staged. With a good turn out of eastern states traders coming especially for the event, we decided to hold a pre-Hamfest get-together on Saturday night. It was well attended, with Bushcomm, Andrews Communications and TET Emtron all enjoying a social evening.

VK4VKV was delayed by the late arrival of his plane from VK4, but Joe VK6BFI kept some of the tasty dishes for him. There was to be a BBQ of scotch fillets, but the spread which was to be just the first course, turned out to be so sumptuous that the BBQ was abandoned. We could not have wined and dined any better at a four-star restaurant. It really does show what can be done with club premises which have all the right facilities. To be able to entertain the traders in the manner which was so

convivial with the wine and food being first class, should have convinced the visitors that our club is "progressive"?

On a bright and sunny Sunday morning, Hamfest Heaven opened with the venue that was filled with all the needs of any amateur, ready to admit almost 400 people. The Event proved to be as popular as ever, and approximately 20 NCRG members had, by opening time, arranged the 65 tables for all the traders, exhibitors, the various groups representing their activity, Buy and Sell Tables, and to feed the Inner Man/Woman, the Kitchen.

Eastern states traders, along with City Online, the Yaesu agent for WA, Bushcomm, Outbacker and other locals, set up their displays of brochures and a plethora of amateur related equipment. If it was not on a table for sale there and then, the order book was ready to take your order. It should be remembered the traders from the east had to travel by air, and it was not practical to bring

a sample of all the equipment that they stock in their shop. However they did make a lot of the Hamfest visitors take a great interest in their wares. The local traders too were able to stop the visitors and they too seem to have enjoyed a lot of interest in their displays.

Of show stopping action, the Peter Terren Tesla High Voltage Display certainly grabbed the attention of people. Set up inside the Recreation Centre, the big wire cage was illuminated by the discharging of the Tesla Coil emitting its electric arcs to the wire cage. To say that it was spectacular is a slight understatement. For an insight into what this doctor of medicine can build, go to www.tesladownunder.com You will be amazed!

The Army's 109 Signals Squadron set up their static display inside the venue, and their vehicles outside with them showing the Army's mobile radio capability, \$2,000,000 in one truck! One of the Army recruits drew all the raffle



Peter Terren plays high voltage



Colin VK6ACT with his new Yaesu FT10-M.

tickets for the many prizes that were provided by the club and the traders.

All the prizes were donated and were: Yaesu FTM-10R dual band mobile, Kenwood Hi Fi system, Andrews Comms 2 m mobile, Terlin Outbacker antenna, Bushcomm \$200 antenna voucher, TET Emtron 2/70 mobile whip, KVK Antennas book on CD and several Kenwood Bar runners. Maybe we can tempt Icom to donate a prize next year too! A full list of prizes and pictures are on the club website www.nercg.org.au in the Hamfest section.

As for the Lucky Door Prize.....The entry door ticket seller saw VK6VR leaving just before the door prize was to be drawn. He called out to Peter and said to wait as the door prize was soon to be drawn. So he turned around and went back into the venue, where the draw was immediately drawn. Next thing we see is Peter walking out again with the prize (a Quansheng 2m handheld and gift pack) under his arm. How is that for a good luck story?

The Old Timers took the opportunity to have a mass picture session, as did the YLs and XYLs present, look for their pictures later.

The kitchen staff served the multitude with efficiency and thanks go to those who worked hard for the club. XYLs of Barry VK6HX and Aleck VK6APK along with club members and Joe VK6BFI on his cappuccino machine really did the Club proud.

There seemed to be a big percentage of non-amateur visitors attending our Hamfest this year. It would be interesting to know how they came to know of the event?

Of note for next year, is an undertaking by Lee Andrews, KVK Antennas and Tet Emtron to come over again.

Hopefully we will see you there as well.

73 de Keith VK6XH
Secretary NCRG and Chairman of the new
VK6 Advisory Committee.

Plan ahead

BARG Hamfest

Ballarat

Sunday 4 November

vk3axh@barg.org.au

Ross Hull

Memorial VHF Contest
(VHF/UHF)

Boxing Day (Dec 26)
2007 to Jan 2008

TET-EMTRON

Antenna Manufacturers

New Tet-Emtron Vertical Range

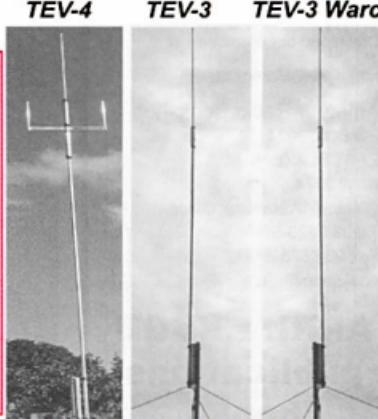
- All Aluminium with Stainless steel hardware.
- No adjustment needed to main antenna.
- Light.
- Free standing—no intrusive guy wires.
- 1 kW PEP power rating.
- Can be ground mounted or elevated.

The new TET-Emtron Vertical range is designed with ease of use in mind. Tuning is done by the radials when the antenna is in its final position (where possible). The radials can either lay on the ground, be buried or hang from the elevated antenna. The antenna comes with a set of radials that has a resonant radial for each band. Further sets can be ordered from TET-Emtron if desired.

See the web site for more info and a complete dealer list.

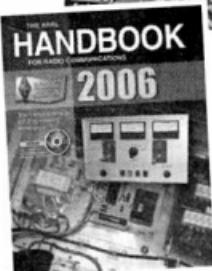
40 Blackburn Street
STRATFORD
Victoria 3862 AUSTRALIA
www.tet-emtron.com
Email: rawmar@hotkey.net.au

New
Tet-Emtron Vertical Range



Antenna	TEV-4	TEV-3	TEV-3 Warc
FREQUENCY	7, 14, 21, 28 MHz	14, 21, 28 MHz	10, 18, 24 MHz
ELEMENT HEIGHT	4090 mm	3800 mm	5025 mm
FEED IMPEDANCE	50 ohm	50 ohm	50 ohm
Max. RADIAL LENGTH	10.7 metres	5 metres	7.5 metres
SWR	1.5 or less	1.5 or less	1.5 or less
POWER RATING	1 kW	1 kW	1 kW

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News from...

VK7

Justin Giles-Clark, VK7TW

Email: vk7tw@wia.org.au Regional Web Site: reast.asn.au

It was great to hear so many VK7s during the Remembrance Day contest. The 50th JOTA is later this month on the weekend of 19, 20 & 21. There are many Scout and Guide groups around VK7 who are looking for assistance with JOTA/JOTI. If you are prepared to volunteer some time in the North West area contact Tony VK7AX on 6425 2923 or email: nwtarig@spamex.com. In the North contact Tony VK7YBG on VK7RAA or email: dodgem37@netspace.net.au. In the South contact Rod VK7TRF on 0417 314 425 or email: roja3kel@yahoo.com.au. This is a great opportunity to get young people interested in amateur radio through the Foundation Licence.

Regular VK7 broadcasts have been going for well over 50 years and thanks to John VK7JK we have callback statistics for many of those years. We are able to report a welcome trend throughout VK7 with greater numbers of callbacks each Sunday. The chart on page 43 shows that for the last 6 years we have seen a steady increase in call backs from an average of about 60 per week to an average of 115 four years later. This is mainly due

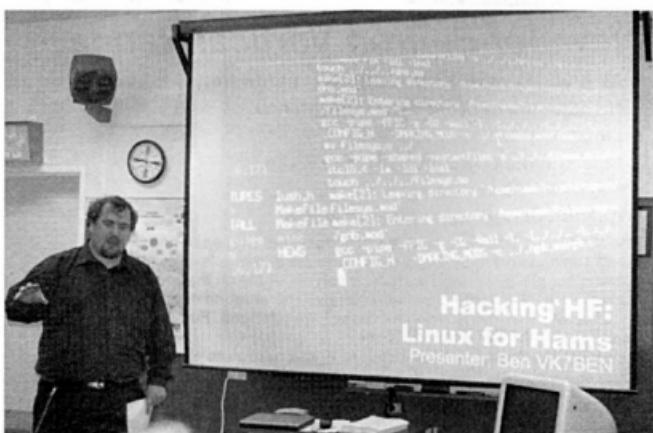
to increasing numbers on MF, HF and repeaters. Greater detail can be found at: <http://reast.asn.au/news.php>

North West Tasmanian Amateur Radio Interest Group

A battery bank replacement and additional solar panels at the VK7RNW Lonah Site has seen the repeater return to its usual healthy state. This was thanks to the efforts of Ivan VK7XL, Jim VK7JH and Tony VK7AX. A boost charge was also given to the remaining battery banks thanks to Jim's portable generator. The regular broadcasts have returned on Monday nights alternating between the VK7RNW and VK7RMD (Mt. Duncan) 2 m repeaters.

Northern Tasmania Amateur Radio Club

We welcome two new Foundation Licensees in Ann Eagling (VK7YBG's XYL) and Max Gibson. Bill VK7MX has a few Victory frequency counters and



Ben, VK7BEN - Hacking HF - Linux for Hams Presentation (see story in REAST segment)

some new Quangsheng drop-in chargers for sale and he is also organising some protective cases for the Quangsheng. If interested contact Bill on 6398 6100 or 0409 608 183 or you can contact him on VK7RAA. The October meeting is a BBQ night at the Mt Barrow interpretation centre.

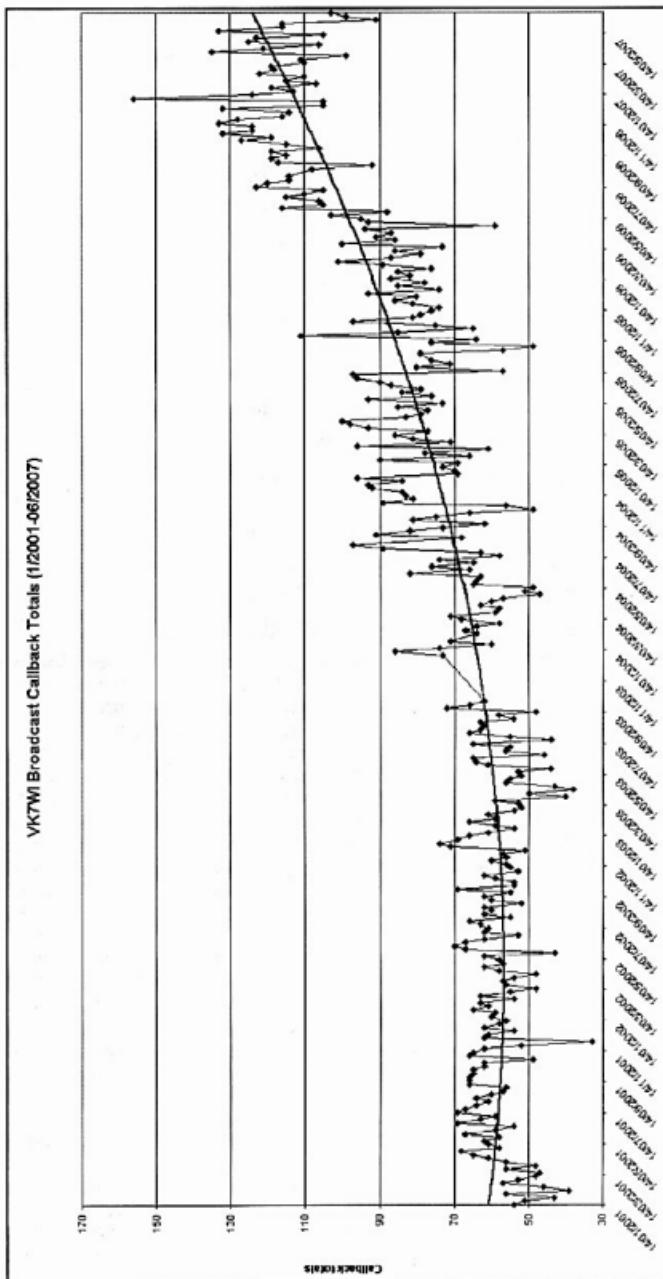
Radio and Electronics Association of Southern Tasmania

The WICEN South crew of VK7s Chris FCDW, Gary JGD, John ZZ, Roger ARN, Scott HSE and Stu NXX supported the Southern Tasmanian Endurance Riders in the Wielangta forest south of Hobart with safety checkpoints. Despite the wet and muddy conditions the team provided a great service. Club station VK7OTC was active during the RD thanks to VK7s BEN, ZMS, ZBX and ZCR who operated a multi-multi station for the entire 24 hours from the Central Highlands of Tasmania. It is great to see our ATV anchor man Ken, VK7DY and XYL Wendy VK7FWJS back from their more than 8000 km trek around Australia.

Congratulations to Ron VK7FEAA and Rod VK7FROD who now have their call signs and are busy on air. The first (of many!) REAST Standard Licence Training Courses has started with 12 participants. The course is being presented by a range of knowledgeable club members and provides a great way to upgrade. The course runs for about 12 weeks.

The September presentation was given by Ben VK7BEN and was a look at Linux in the shack. Ben took us through some history, installation, versions and finished up with a demo of Harv's Ham Shack CD-Rom. This was an excellent presentation and hopefully gave members a look at Linux and what it is all about. Thanks Ben (see photo on page 41).

ar



Contests

Phil Smeaton VK4BAA

Contest Calendar October – December 2007

Oct	6	PSK31 Rumble	Digital
	6/7	Oceania DX Contest	SSB
	9	10-10 International Day Sprint	All
	13/14	Oceania DX Contest	CW
	14	Asia-Pacific Sprint	CW
	20/21	JARTS WW RTTY	RTTY
	27/28	CQ WW DX Contest	SSB
Nov	10/11	Japan International DX Contest	SSB
	10/11	Worked All Europe DX Contest	RTTY
	17/18	Spring VHF/UHF Field Day	All
	24/25	CQWW DX Contest	CW
Dec	26 to Jan 2008	Ross Hull Memorial VHF Contest (VHF/UHF)	All

Welcome to this month's Contest Column!

Oceania DX Contest – 2006 SSB Results

Callsign	Category	QSOs	Points	Mults	Score	Callsign	Category	QSOs	Points	Mults	Score
VK5-398738	SWL ALL	279	1113	197	219261	VK4FRED	SINGLE-OP ALL	39	195	17	3315
VK4EMM	SINGLE-OP ALL	1033	2962	642	1901604	VK3JS	SINGLE-OP ALL	25	153	21	3213
VK2APG	SINGLE-OP ALL	991	2114	548	1158472	VK2KDP	SINGLE-OP ALL	33	125	21	2625
VK4UC	SINGLE-OP ALL	505	861	325	279825	VK5MM	SINGLE-OP ALL	29	138	16	2208
VK4BUI	SINGLE-OP ALL	414	902	266	239932	VK4LAD	SINGLE-OP ALL	27	132	14	1848
VK7GN	SINGLE-OP ALL	357	469	247	115843	VK4DX	SINGLE-OP ALL	38	38	32	1216
VK2GWK	SINGLE-OP ALL	326	437	229	100073	VK2KRM	SINGLE-OP ALL	27	46	26	1196
VK5MAV	SINGLE-OP ALL	182	630	106	66780	VK2UVP	SINGLE-OP ALL	12	77	12	924
VK4NEF	SINGLE-OP ALL	178	437	129	56373	VK7HAH	SINGLE-OP ALL	26	43	21	903
VK4FJ	SINGLE-OP ALL	193	340	145	49300	VK5UE	SINGLE-OP ALL	16	52	10	520
VK2TZA	SINGLE-OP ALL	163	512	76	38912	VK2ZEN	SINGLE-OP ALL	14	38	12	456
VK2BJ	SINGLE-OP ALL	120	412	80	32960	VK6DXI/MM	SINGLE-OP ALL	10	34	7	238
VK2HBG	SINGLE-OP ALL	117	509	54	27486	VK1WJ	SINGLE-OP ALL	13	13	10	130
VK3KE	SINGLE-OP ALL	115	333	78	25974	VK2CZ	SINGLE-OP 40M	178	890	86	76540
VK3AVV	SINGLE-OP ALL	124	273	94	25662	VK2LCD	SINGLE-OP 40M	64	320	27	8640
VK2BAA	SINGLE-OP ALL	103	325	72	23400	VK3FCLL	SINGLE-OP 40M	36	180	8	1440
VK2FBOB	SINGLE-OP ALL	97	599	31	18569	VK4AN	SINGLE-OP 20M	751	751	394	295894
VK2FHN	SINGLE-OP ALL	126	214	79	16906	VK4DMP	SINGLE-OP 20M	638	638	329	209902
VK6HZ	SINGLE-OP ALL	100	237	71	16827	VK4KKD	SINGLE-OP 20M	235	235	144	33840
VK4HTM	SINGLE-OP ALL	89	236	71	16756	VK4CZ	SINGLE-OP 15M	125	250	93	23250
VK7ZZ	SINGLE-OP ALL	80	213	50	10650	VK6ANC	MULTI-ONE ALL	854	2446	568	1389328
VK8HPB	SINGLE-OP ALL	88	126	70	8820	VK4WR	MULTI-ONE ALL	1022	2234	588	1313592
VK6DXA	SINGLE-OP ALL	52	236	34	8024	VK4WIL	MULTI-ONE ALL	598	1387	373	517351
VK2NU	SINGLE-OP ALL	53	169	37	6253	VK2ATZ	MULTI-ONE ALL	316	751	199	149449
VK4VCC	SINGLE-OP ALL	59	149	41	6109	VK3SAT	MULTI-ONE ALL	75	304	54	16416
VK7ARN	SINGLE-OP ALL	58	163	37	6031	VK7MBD	MULTI-ONE ALL	68	244	38	9272
VK2WG	SINGLE-OP ALL	39	298	19	5662						

Oceania DX Contest – 2006 CW Results

Callsign	Category	QSOs	Points	Mults	Score
VK4EMM	SINGLE-OP ALL	1124	4439	678	3009642
VK7GN	SINGLE-OP ALL	513	1331	342	455202
VK2BJ	SINGLE-OP ALL	337	1234	252	310968
VK4XY	SINGLE-OP ALL	420	1035	290	300150
VK4BUI	SINGLE-OP ALL	335	1097	248	272056
VK2BAA	SINGLE-OP ALL	292	1063	213	226419
VK2GR	SINGLE-OP ALL	201	968	158	152944
VK5MAV	SINGLE-OP ALL	222	915	152	139080
VK2NU	SINGLE-OP ALL	134	605	109	65945
VK3KE	SINGLE-OP ALL	71	271	65	17615

Callsign	Category	QSOs	Points	Mults	Score
VK4TT	SINGLE-OP ALL	83	140	56	7840
VK4DX	SINGLE-OP ALL	85	105	67	7035
VK3JS	SINGLE-OP ALL	26	202	16	3232
VK4FW	SINGLE-OP 80M	128	1280	76	97280
VK3TX	SINGLE-OP 80M	6	60	4	240
VK4AN	SINGLE-OP 40M	523	2615	285	745275
VK2AR	SINGLE-OP 40M	76	380	53	20140
VK8AV	SINGLE-OP 40M	50	250	37	9250
VK7RO	SINGLE-OP 40M	20	100	17	1700
VK2ATZ	MULTI-ONE ALL	460	1613	312	503256

The Oceania DX contests go from strength to strength, with a very pleasing increase in participants from VK in 2006. Were you aware that there is a plaque available for the top VK club in the contests? Why not rally some members from your club and see what you can do in 2007?

VK6ANC, the team from the Northern Corridor Radio Group, took top honours for Multi One in the SSB leg of the contests, with a very impressive score of 1,389,328 and a close battle with VK4WR. The VK4WR team were ahead on QSOs and multipliers but the apparent approach of quality (higher scoring) QSOs over quantity seems to have paid-off for the VK6ANC operators as they won the day with an impressive QSO points score of 2446.

It is great to see an SWL in the listing too. I have been recently sent quite a number of QSL cards by SWLs listening during contests. From a personal point of view, I am delighted to receive such reports, as I am always trying out new antennae and configurations and it is often good to see where the RF got to! Hence, I always return the compliment – although I will now have to get some more printed for my new callsign.

John VK4EMM is welcomed back into the contesting fold with a magnificent effort to get first place in both the SSB and CW legs of the contest.

Tony VK3TZ, John VK4UC, Phillip VK2FHN, Mirek VK6DXI and Martin VK7GN are the VK section of the contest committee, whilst John VK4EMM, David VK2AYD, Olaf VK1JDX and David VK2CZ have recently decided to step down from Committee duties. The contest is evidently in good hands as participation expanded somewhat

in 2006 despite the sun spot cycle taking its inevitable toll. The contest is especially fun as VOs are included in the sought-after sweetmeat for the rest of the world to try and get into the log. For more information on the contest, take a look at the website at <http://www.oceaniadxcontest.com>

ALARA Contest

The ladies at the Westlakes Club entered this year's ALARA contest as VK2ATZ. This is the first time that the girls have taken part and the team consisted of Leonie VK2FHRK, Lisa VK2FOXE, Diane VK2FDNE, Karen VK2NYL and Karen VK2ZKG. Paul VK2BPL lent a hand with the station and, as an 'old hand' at contesting, the ladies could not have had a better mentor. With team members taking it in turns to run the station at various times of the day and night, everyone shared in the fun and QSOs. Paul was kind enough to send me some photos of the event but my PC managed to chew them up (that's my excuse and I'm sticking to it!) and make them invisible, so my apologies for not including them here.

Relocation

At the time of writing the September column script, I was in the process of morphing from VK2BAA into a bright shiny new VK4BAA. Things are still a little hectic within the BAA VK4 household, but things are now tidy enough for me to have taken a little bit of time away from unpacking to put up a full wave 40 m quad loop at 60 feet (20 m) into the nearby trees. The branch is slightly too low for a quarter wave vertical for 80 m, which is a shame. Maybe I could coil the remaining metre

or two of wire instead? A lesson learnt however, as I needed a method of getting the suspension rope into the trees. A quick look on the Net some weeks ago allowed a suitable tool to be bought for the task. Last week, I received a note from the Australian Customs office stating that I had tried to import a restricted item without a permit! I had no idea that I required a permit to buy a slingshot from the States. It transpires that the offending attribute is the arm brace facility – even the presence of holes to affix the hardware is not permitted. I bought a slingshot from a local archery store and put it to work, but an expensive lesson was learnt with \$90 lost due to my ignorance. Be warned!

Correspondence received

I am always delighted to receive correspondence from AR readers. So someone does read this column then! Ian VK4KAD wrote with regard to remote contesting and SO2R. Ian has also queried the intent of RD Contest Rule 10b - Automated Operation.

Ian's first question concerns the discussion recently in this column as regards remote operation. Ian ponders: *'Perhaps we need a rule to the effect that; 'the transmitter and receiver must be co-located and at a distance of not more than 100 kilometres (or some other arbitrary distance) from the operating location.'* In a cross border situation, for example, a Gold Coast operator with a station in northern NSW, it would be a VK2 station. *'Who cares where the operator is, as long as he is in control of the station?'*

'After all, would an urban contesteer expect me to be penalised because I have a quiet site on top of the Dividing Range'

with few antenna restrictions? If another contestor has the money and technical ability to do the same, but control the station from suburban Brisbane, what is the difference? To prohibit such an installation is to curtail technical development in the hobby.

Bringing in rules to limit the operation of the station during a contest has been in existence for many years, in an attempt to promote the full spectrum of operators and station facilities within a like-for-like competitive environment. The use of the Net for spotting facilities is a case in point, but how far should this 'go'? Would contest managers go to the extreme of having so many sub-sections that due to the myriad of equipment, locations and operator abilities, we would not actually be competing anymore? There needs to be a level of sobriety and a sensible line drawn to allow a reasonable classification or grouping of contestants without diminishing the value of the activity. If my quad loop is in a higher tree than someone else's, then that is my good fortune and not something to categorise me into my own 'section'. Surely?

I am sure that the RD contest manager Peter VK4OD will respond accordingly directly to Ian as regards rule 10b, but Ian's letter does serve to illustrate the complexity (and hence the difficulty) of contest rule generation and the driving forces behind their existence and wording. Thanks Ian for taking the time to write and to discuss the various foods for thought.

CQWW DX 160 Results

Mirek VK6DXI and Ron VK3IO were busy during the CQWW DX 160 contest flying the flag for Australia in the CW section, with Mirek out in front to take honours. Ron was operating with low power but still managed to keep pace with Mirek – no mean feat!

If you have any contest related material for inclusion within the column, topics that you would like covered or even some experiences and pictures you would like to share, then please feel free to get in touch via vk2baa@wia.org.au. I have not yet had my email address changed yet to reflect my new VK4 prefix! See you on the bands.

73 de Phil Smeaton VK4BAA

Spring VHF-UHF Field Day 2007

John Martin VK3KWA
Contest Manager

The Spring VHF-UHF Field Day for 2007 will be held over the weekend of November 17 and 18. This is a week later than in past years. The change of dates avoids clashes with some club activities that will take place earlier in the month.

There are two minor changes in the rules:

1. Stations may enter both the 24 hour and 8 hour sections, but only if the station actually operates for more than 8 hours.
2. Changing locations: It is not in the spirit of the contest for grid-hoppers to set up more than one station and move between them. The rules now make it clear that not only the operator but also the station must be moved when operating locations are changed.

Please note also the rule on the use of DX calling frequencies. Where possible, contest activity should focus on the recommended contest calling frequency.

Dates

Saturday and Sunday November 17 and 18, 2007.

Duration in all call areas other than VK6: 0100 UTC Saturday to 0100 UTC Sunday.

Duration in VK6 only: 0400 UTC Saturday to 0400 UTC Sunday.

Sections

- A: Portable station, single operator, 24 hours.
- B: Portable station, single operator, 8 hours.
- C: Portable station, multiple operators, 24 hours.
- D: Portable station, multiple operators, 8 hours.
- E: Home station, 24 hours.

If a single operator station operates for more than 8 hours, the station may enter both Section A and Section B. If the winner of Section A has also entered Section B, his log will be excluded from Section B. The same applies to multiple

operator stations entering Sections C and D.

General Rules

A station is portable only if all of its equipment is transported to a place which is not the normal location of any amateur station. Operation may be from any location. Stations may change location during the Field Day provided the station is dismantled and reassembled each time it moves. You may work stations within your own locator square. Repeater, satellite and crossband contacts are not permitted.

One callsign per station. If two operators set up a joint station with shared equipment, they may choose to enter Section A or B as separate stations under their own callsigns, or Section C or D under a single callsign. If they enter Section A or B, they may not claim contacts with each other. Stations with more than two operators must enter Section C or D. Operators of stations in Section C or D may not make contest exchanges using callsigns other than the club or group callsign.

No contest operation is allowed below 50.150 MHz. Recognised DX calling frequencies must not be used for any contest activity. Suggested procedure is to call on .150 on each band, and QSY up if necessary.

Contest Exchange

RS (or RST) reports, a serial number, and your four digit Maidenhead locator.

Repeat Contacts

Stations may be worked again on each band after three hours. If the station is moved to a new location in a different locator square, repeat contacts may be made immediately. If the station moves back into the previous locator square, the three hour limit still applies to stations worked from that square.

Scoring

For each band, score 10 points for each locator square in which your station operates, plus 10 points for each locator

square worked, plus 1 point per contact. Multiply the total by the band multiplier as follows:

6 m	2 m	70 cm	23 cm	Higher
x 1	x 3	x 5	x 8	x 10

Then total the scores for all bands.

Logs

Logs should cover the entire operating period and include the following for each contact: UTC time, frequency, station worked, serial numbers and locator numbers exchanged, points claimed.

Cover Sheet

The cover sheet should contain the names and callsigns of all operators; postal address; station location and Maidenhead locator; the section(s) entered; the scoring table; and a signed

South Korea to host the 14th World ARDF Championships

The KARL (Korean Amateur Radio League) will host the 14th World ARDF championships in Geonggi Province from 2nd through 7th September, 2008.

Participation is encouraged from worldwide amateur radio societies and individual ARDF competitors. A Korean VISA may be obtained from the South Korean Embassy and, if any problems are encountered, assistance will be provided by the Organising Committee.

It is expected that competitors will arrive in South Korea via Incheon International Airport, where they will be met and transported to the competition site, about a two hour drive.

The program allows a free day for sightseeing, on Friday 5th before departure on the Sunday. Given that it will be late summer/early autumn temperatures around 22 C may be expected.

The anticipated entry fee per competitor will be around US\$400.

Further information may be obtained from the WIA ARDF Coordinator Jack Bramham VK3WWW, or from the Organising Committee at 2008ardf@karl.or.kr

declaration that the contest manager's decision will be accepted as final.

Please use the format below for your scoring table. In this example the operator has operated from one locator and worked four locators on each band:

A sample cover sheet (below) and scoring table is available on the WIA web site. Copies can also be obtained from the e-mail address given below.

Scoring table format

Band	Locators Activated (10 points each)	+	Locators Worked (10 points each)	+	QSOs (1 point each)	x Multiplier	= Band Total
6 m	10	+	40	+	40	x 1	= 90
2 m	10	+	40	+	30	x 3	= 240
70 cm	10	+	40	+	20	x 5	= 350
Overall Total							= 680

WIA VHF-UHF FIELD DAY

Section entered:

- A Single operator 24 hours
- B Single operator 8 hours
- C Multi operator 24 hours
- D Multi operator 8 hours
- E Home station 24 hours

If entering more than one section, please use a separate copy of this sheet for each section.

For Section B or D, time period to be scored:

Date:

Station callsign:

Callsigns and names of all operators:

The station operated from the following grid locators:

Postal address for notification of results:

Postcode:

The station was operated in accordance with the rules and spirit of the contest. I / We agree to accept the Contest Manager's decision as final

Signed: _____

SCORING TABLE

Band	Locators Activated (10 points each)	Locators Worked (10 points each)	QSOs made (1 point each)	Total	Band Multiplier	Band Total
50 MHz	+	+	=	x 1	=	
144 MHz	+	+	=	x 3	=	
432 MHz	+	+	=	x 5	=	
1296 MHz	+	+	=	x 8	=	
2.4 GHz	+	+	=	x 10	=	
3.4 GHz	+	+	=	x 10	=	
5.7 GHz	+	+	=	x 10	=	
10 GHz	+	+	=	x 10	=	
Higher	+	+	=	x 10	=	
FINAL TOTAL						= _____

DX – News & Views

John Bazley VK4OQ

john.bazley@bigpond.com

In spite of several reports predicting that conditions will have started to improve by now, the following information comes from Frank W3LPL. The solar flux minimum is still predicted to have been July. However, NOAA is not predicting any significant increase in solar flux until later this year. Their "low" prediction shows a delay of Cycle 24 until 2008. Any significant increase is dependent on Cycle 24 sunspots beginning to appear on the Sun. This has not yet been observed! "Alarm bells will go off when they do", says Frank! <http://www.sec.noaa.gov/SolarCycle>

DXCC News

J5UAR: (Guinea-Bissau, 2007 operation) has been accepted for DXCC credit. Those who had cards rejected for this operation can send an e-mail to dxcc@arrl.org and they will be placed on the list for update.

Likewise 9UOX - (Burundi, February 2007) has also been accepted for DXCC credit.

1A0KM: The recent operation has been loaded onto the LOTW for confirmations.

T9: The International Telecommunications Union (ITU) has replaced the callsign series prefix block of Bosnia and Herzegovina (BiH) from T9 to E7. While it probably will take some time for the BiH administration

to implement this change, it should put to an end the use of call signs outside the ITU-allocated call sign block by stations in parts of BiH. With this new E7 prefix it is hoped that all Amateur Radio operators within the borders of Bosnia and Herzegovina will use the correct callsigns. Now that this has been completed, Serbia will soon officially start using the YU4 prefix within its borders. The exact dates of when the Amateur Radio operators from BiH will begin to use the new E7 prefix is not known but should be very soon. You can read more on the ARRL Web site at <http://www.arrl.org/?artid=7644> and you can keep an eye on the Bosnia and Herzegovina Communications Regulatory Agency Web site at <http://www.cra.ba/index.aspx>

T3: Toshi JA8BMK will be active as T31XX from Kanton Island, Central Kiribati (OC-043) for about a couple of weeks in late October using SSB, CW and RTTY on 160 - 6 metres. He expects to leave Japan for T30 (via Fiji) in September, and to reach T31 one week after leaving T30 in mid-October. He might also visit Banaba Island and operate as T33ZZ, before or after the T31 activity. Toshi is looking for other operators who may join him and share the expenses (his e-mail address can be found at www.qrz.com under JA8BMK).

ST & 6W: ST2A has now gone QRT - Jovica's (T98A, ex-T94FC) assignment in Sudan has come to an end. During the past two years he operated as ST0RM and ST2A, and had 40,660 QSOs (35,012 CW, 3386 SSB, 2249 RTTY and 13 PSK31), including 843 QSOs on 160 m, 3916 on 80 m and 585 on 6 m. A few pictures illustrating living and working conditions in the Sudanese desert environment are available at <http://www.t93y.com/st2a>. His new assignment with UNHCR (United Nations High Commissioner for Refugees) is in Dakar, Senegal, and will start on 1 September. Jovica's work area covers the whole West Africa and he hopes to activate most countries in the region. Information about amateur radio activities will follow in due course.

Kh3: W7KFI's 'on again, off again'

trip to Johnston Island is currently off again! Susan says, "Sorry people, now hurricane Erin is heading this way and it looks like it will pass to the south, so I am heading into Honolulu until the hurricane season ends in November. If there is a break in the weather then I will skedaddle to KH3."

4O: Ranko Boca 4O3A (ex YT6A) reports as of 16 July 2007, all Montenegro Amateur Radio operators' old Serbian calls have now expired. Amateur Radio ops from the fledgling nation have been or will be assigned the new 4O (Four Oscar) prefix callsigns. Former YT6Y, Dragan Djordjevic, is now 4O4A. The International Telecommunication Union (ITU) assigned Montenegro the 4O prefix in mid-May 2007 and took back Serbia's 4N and YZ prefixes. Serbia is no longer using the 4O prefix. No word on when Serbia will discontinue using the old YZ and 4N prefixes, which the ITU has taken back for future use. Francis F6FQK advises that to honour the admission of the Republic of Montenegro to the Council of Europe, the radio club of the Council of Europe has organized an expedition in collaboration with Ranko 4O3A for 17th to 21st October. Callsign is 4O0CE. QSL via F5LGF. Logs will be posted on the web site <http://ewwa.free.fr>

EL: Dutch Amateurs PA3A, PA3AN, PA8AD and PA3AWW will be active from Liberia (EL) from October 5th to 24th. They will be QRV on CW and SSB. Their calls will be announced upon arrival. They have a Web site at www.liberia2007.com QSL via PA3AWW.

YK: Amateur Radio operators in Syria will be celebrating the 60th anniversary of Amateur Radio in YK. To commemorate the event Amateur Radio operators from Syria will be using special prefix 6C60 (that is Six Charlie Six Zero) from October 15th to November 11th.

V31: V31FB, Belize, Ambergris Caye, NA-073, will be on October 25-31, with W5JON and his wife, W5HAM, on site. John will be on 160-10 m SSB in the CQWW SSB. He says years ago his wife, Cathy, said he could operate any contest from anywhere, "as long as it is warm and there is a beach." This will be their

Are you managing the estate of a 'Silent key'?

Please save any QSLs for the National QSL collection, but first contact:

The Hon. Curator,
Ken Matchett VK3TL
on (03) 9728 5350
or email: wiaqslcollection@wia.org.au

Rare DX, special call-signs prefixes and suffixes, pictorials and pre-war QSLs are needed.

Let us save something for the history of amateur radio.

fifth year on Ambergris Caye. QSL to their home callsigns.

KH4: Pete M1SOM reports that Midway Atoll, the long stretch of atolls and coral reefs northwest of the Hawaiian Islands, is being preserved as a "marine national monument," with all fishing stopping by 2011. One spot that will still be available to DXpeditions is Midway. Starting about six months from now, the U.S. Fish and Wildlife Service plans to start letting tourists visit Midway, to help clean up debris and invasive species on the island, and hopefully leaving with increased sensitivity to the preservation of the environment. Pete directs us to this site: http://news.yahoo.com/s/ap/20070721/ap_on_re_us/midway_tourism_1

8P6DR: will be activated from September 27th to October 14th by Richard G3RWL. He will be using a K2/100 mostly on CW with some digital activity, including the CQ WW RTTY Contest. Look for him on 10 through 80 meters. QSL via G3RWL; also check his QRZ.COM listing for 8P6DR.

SH9PD: Tanzania will be on the air October 6-19. Operator Pat W8FV will be in Mwanza on the southern shore of Lake Victoria.

P40: P40A, Aruba, will be in the CQWW SSB October 27-28, single op all bands. This will be John KK9A.

ZL7: Jacek SP5EAQ, Wojciech SP9PT, Marek SP9BQJ and Jozef SP9-31029 plan to operate SSB, CW and RTTY as ZL7/SP5EAQ, ZL7/SP9PT and ZL7/SP9BQJ from the Chatham Islands (OC-038) on 5-18 October. QSL via home calls.

3C: Fred KH7Y, Vicente EA5YN, Luis EA5BRE and Elmo EA5BYP will be active as 3C7Y from Bioko Island (AF-010), Equatorial Guinea on 5-14 October. They will operate CW, SSB and RTTY with two stations on all bands. QSL via EA5BYP.

C6: Pete W2GJ (C6APR), Ed K3IXD (C6AXD) and Randy K4QO (C6AQO) will be active from Crooked Island (NA-113), Bahamas on 25-29 October. They will operate CW, SSB, and RTTY on 80 - 6 metres and will participate in the CQ WW DX SSB Contest as C6APR. All QSLs via K3IXD.

E5: Bill N7OU, is heading back to the Cook Islands. Look for him as E51NOU from Rarotonga, South Cooks from October 8th to November 3rd,

including "a casual effort in the CQ WW SSB Contest". He will be operating on 10 through 80 metres mostly on CW running low power. While there he'll be "on a work schedule during weekdays and operating will be limited" to his free time. QSL via N7OU.

QSL BS7H: The first QSLs were mailed on 23 July. Steve KU9C has received over 10,000 envelopes, so it is expected it will take approximately two months before every card is answered. Please do not send for a second card until we announce all cards have been answered. Steve will also upload QSOs to LOTW as he processes the cards so, if you utilize LOTW, you can expect your QSOs to show up roughly the same time you receive your card. This will allow you to avoid mailing in your physical QSL card for verification. A small number of QSL cards were received with either no SASE, or a SASE with old style IRCs that are no longer valid. KU9C will attempt to contact you via email, but if he cannot contact you, these will be returned by the bureau. Steve will also upload bureau card QSOs to LOTW as they are processed.

QSL V51AS: Frank Steinhauser V51AS reports he has a new maildrop address: Heinrich-Heine-Strasse 35, 72555 Metzingen, Germany (the Olching address apparently is no longer valid).

Russian QSLs: Mal VK6LC in an e-mail to me wishes to advise VK DXers that methods of QSLing direct to Russia have slightly changed. Do not send "green stamps".

In a recent e-mail from RX3RC, Mal states that he asks that only valid IRCs be sent to avoid cash in the mail being stolen.

While on the subject of QSLing Russian stations direct, readers may not be aware of a Russian QTH data base which with cut and paste enables you to address the envelope in Russian script. It is at <http://ric.qcham.ru/>

Happy Dxing.

Special thanks to the authors of *The Daily DX* (W3UR) and *425 DX News* (IJQJ) for information appearing in this month's DX News & Views.

For interested readers: you can obtain from W3UR a free two week trial of *The Daily DX* from www.dailyydx.com/order.htm

"Hey, Old Timer..."



If you
have been
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Amateur radio – a bridge to careers in radio communications technology

ar

VHF/UHF – An Expanding World

David Smith VK3HZ – vk3hz@wia.org.au

Weak Signal

David Smith - VK3HZ

As I write this, spring has arrived and conditions are on the improve. In recent weeks, there have been several minor tropo openings from VK3 into VK5 and VK7. Newcastle Channel 5A TV sound has been heard in ZL, although no contacts were achieved. So, fingers crossed that we are in for a season as good as, if not better than, last year. Keep an eye on the weather charts, Hepburn site and the VK/ZL Logger for potential activity. And above all, have that equipment sharpened up and ready to go.

Spring Field Day

The Spring Field Day is coming up shortly on the weekend of 17/18 November. There have been several minor rule changes/clarifications. Full details may be found on the WIA web site: www.wia.org.au/contests/vu_fieldday/index.php

Already, a number of stations have indicated their intention to be out on hilltops. Ted VK1BL reports that there'll be a crowd of stations in VK1:

For the Spring Field Day, there should be at least 4 stations in the field, all with capability up to 23 cm and some with 13 cm and above. A preliminary agenda:

Mt Coree: Andy VK2AES and crew

Gunning: Ted VK1BL and Greg VK1AI

Mt Aggie: Scott VK1PWE

Mt Ginini: Andrew VK1DA and possibly Chris VK2DO

For the Summer Field Day, VK1BL will be active from Mt Coree (bush fire season permitting). In addition, I intend to be active on a number of weekends (Saturday mornings) throughout spring and summer operating from either Mt Coree or Mt Gemini with 1296 and 2.4 GHz (with potentially 3.4 GHz and 10 GHz) capability.

Chas VK3PY reports that VK3 will be ready to work the VK1 crowd:

I will be operating with David VK3QM and Charlie VK3NX from the Barrabool Hills (QF21CU), 15 km west of Geelong in both the Spring and Summer Field Days.

We will have all bands from 50 MHz to 24 GHz inclusive. We expect to have a 1.2 m dish functional for 2.4 GHz this year, which ought to be several dB better than the smaller grid-pack antenna we previously used. Power is 25 W (although 60 W might be available).

If you are planning on portable operation for the Field Day, please announce your intentions on the VK-VHF mail list and on the VK/ZL Logger Forum – Contest, Field Days, Portable Operations. That way, people will know to look from time to time in your direction.

Even if you are not planning to go portable, put in some operating time so that those in the field have plenty of stations to work. It looks like there will be lots of activity.

For those going out in the field, it would be useful to add an entry in the VK/ZL Logger OpInfo table with details of your operating location. Adam VK4CP – owner of the VK/ZL Logger site – has added the ability to use a /P callsign as an identifier (e.g. VK4CP/P). Such an entry will allow those using the Radio Site Display to analyse the propagation paths to the /P sites.

Speaking of the Radio Site Display, there is now an experimental version running on Google Maps. You'll find the link here: <http://home.exetel.com.au/dwsmit/>

The GM version has the advantage that it is just a web page that displays in your

browser – you do not need to install any special application (you do need an up-to-date browser though). The down side is that GM does not have all the powerful features of Google Earth, so the display is somewhat limited. Anyway, if you can not run Google Earth for whatever reason, the GM version should give you an idea of what it is all about.

New Optical Record

Optical communication is occasionally mentioned here – it is, after all, VERY high frequency communication. Much of the optical activity in Australia is discussed on the Optical DX Yahoo group (http://groups.yahoo.com/group/optical_DX/). A regular contributor to the group is Clint KA7OEI who has been gradually refining his receiver design. He has now achieved some 12 dB improvement over the popular design by Mike VK7MJ – a significant gain.

Clint and associates recently took his systems out into the field in Utah and broke the world record for non-coherent light communication. The previous record of 167.7 km was held by Mike VK7MJ and Chris VK3AML. Clint has now reset this to 172.3 km.

Full details of their efforts, including sound bites and details of the equipment used can be found at: http://www.ka7oei.com/optical_comms/optical_qso_107mile.html

Please send any Weak Signal reports to David VK3HZ at vk3hz@wia.org.au.

Help wanted

I wonder if you could help me track down some very old QSL cards.

I am trying to trace QSL routes for several Territory of New Guinea stations from the 60s and 70s:

VK9AG	SEPTEMBER, 1965
VK9FS/9	SEPTEMBER, 1972
VK9AJ	SEPTEMBER, 1972
VK9EJ	NOVEMBER, 1972
VK9CC	NOVEMBER, 1972

Just wonder if by any chance anyone may know the whereabouts of any of these guys. I still need to confirm the deleted TNG on 20 metres!

I would be really grateful for your help if it is at all possible.

All good wishes and 73

Laurie Margolis, G3UML
London, England
lauriemar@aor.com

Digital DX Modes

Rex Moncur – VK7MO

Sun Noise Measurement

Because of the statistical variability of noise, it is not possible to measure Sun noise to much better than about 0.5 dB (at 95% confidence) in SSB bandwidth receivers with a typical analogue or digital multimeter. However, if you are set up for Digital Modes with an interface from your receiver to a computer with a sound card, Owen Duffy VK1OD, has produced a program that can integrate the noise over much longer periods and achieve resolutions well below 0.1 dB. Owen's program is designed to provide accurate measurements of noise figure and is called NFM for Noise Figure Meter. NFM can be downloaded at: www.vk1od.net/nfm/

While NFM is aimed at Noise Figure measurement, it includes a high-resolution true RMS audio voltmeter, calibrated in dB, which can be used for Sun noise measurements. In its unregistered version, the program integrates noise for up to 0.5 seconds but for a nominal fee one can extend this to 100 seconds and improve the resolution at the 95% confidence level to well below 0.1 dB. Owen provides information on the relationship between resolution and integration time, bandwidth and confidence level at the following URL: www.vk1od.net/fsm/nmu.htm

For sun noise measurement, all one needs to do is set the integration time in the box marked "Interval (s)" in the top yellow area of the program to an appropriate value, say 30 seconds. Then point the antenna at cold sky and press the "1 Noise LO" button which will produce a cold sky measurement in a bit over 30 seconds; then point to the Sun and press the "2 Noise HI" button

which will, after a similar period, give the sun noise measurement. The sun noise in relation to cold sky or Y factor measurement is then shown under the box identified as "Y(2) (dB)".

As Sun noise varies as a function of Solar Flux, one needs to know the actual Solar Flux at your frequency of operation and Owen has produced a useful tool for interpolating this from data provided by NOAA derived from various solar observatories around the World. You can access this tool at: www.vk1od.net/qsr/index.htm

If you feed the Solar Flux into a program such as VK3UM's EME Calculator with your station parameters

it will give you the expected sun noise rise which can be compared to your measured sun noise rise as an indicator of station performance. Doug's program can be downloaded at: www.vk3bez.org/vk3um_software.htm

NFM can also be used to assist measurement of antenna patterns at microwave frequencies using Sun noise as the signal. Figure 1 is an example of the pattern of VK7MO's 2.3 metre dish at 2.3 GHz plotted from noise measurements made with NFM.

Please send any Digital DX Modes reports to Rex VK7MO at rmoncur@bigpond.net.au.

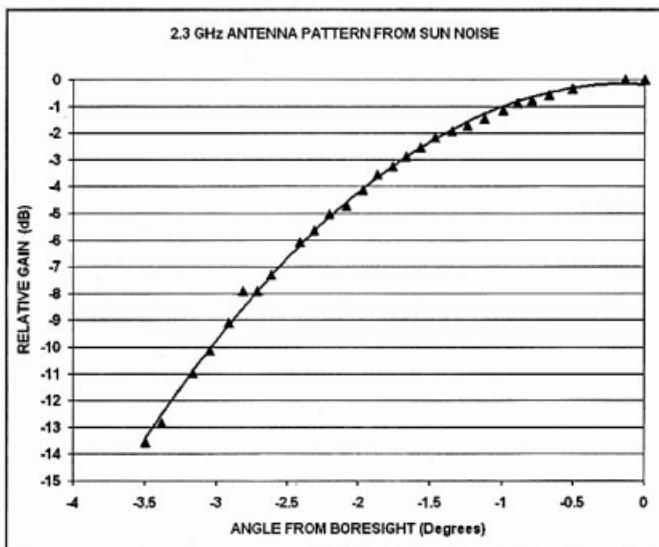


Figure 1: Example of Antenna Pattern plotted from sun noise measurements with NFM

The Magic Band – 6 m DX

Brian Cleland – VK5BC

August has been a very quiet month on 6 m. The only reports of band openings have been from northern Queensland to VK3 and a few reports of briefly hearing beacons. Even John VK4FNQ only reports the following log entries:

Date	Time	Frequency	Call Sign	Comments
3 Aug 2007	0453	50.314.30	VK5RBV	BCN 559
4 Sep 2007	2103	50.287.23	VK2RHH	BCN 559
	2305	50.314.30	VK5RBV	BCN 529
5 Sep 2007	0430	50.046.30	VK8RAS	BCN 51

With the lack of 6 m activity, much discussion has taken place on the VK/ZL Logger and its associated forums of what is needed to be successful in working the much anticipated overseas DX during the next sunspot cycle peak with the ultimate aim of obtaining DXCC. Those living in the northern areas of Australia certainly find this achievement easier but with perseverance, appropriate equipment and the available time, success can be achieved from most areas of Australia.

Steve VK3OT in south west Victoria is testament to this.

Gary VK4ABW is a keen 6 m DXer from north of Townsville and writes:

My tips and tricks for DXCC are as follows:

- Optimise your equipment and antennas for maximum performance. Use the best cables you can afford, use RF chokes on power leads, audio leads, monitor leads, etc.
- Use Digipan as an early warning indicator and for identifying possible indicators.
- Use an audio recorder for those moments when you think you heard something, or your brain took a few nanoseconds holiday. I use a voice recorder on my PC and keep it running during peak cycle activity. I heard VQ9 in the middle of last year (06) and thanks to the audio recorder I was able to play it back.
- Use a spectrum scope if available. Listening to 110 or casually tuning the band, you will miss things. Use all visual and audio means available. Investigate that strange bump 20kHz up ... you never know.
- Be prepared to operate different modes, it's a long way to get 100 countries on SSB alone!
- Use more than one receiver if possible. Parking on 110 won't bring them to you, have one channel on 110 and use the other for manually or auto scanning a segment eg: 090 to 150. That's how I got PY2 last cycle; they were on 120 and didn't go near 110. Also, try calling up and down a bit from 110. I bagged Iraq on 105 that way.
- Low angle radiation is essential for working long haul stuff. We live in Australia and I'm pretty sure there aren't 100 countries nearby.
- Post reception reports of indicators, calls on the clusters, web pages etc. and check the clusters every day (obviously not during the solar minimum).
- Check web pages for expeditions, etc.
- Check back through your log book to see what was happening last cycle. This will give you a 'rough' guide to what may happen next cycle. Look for trends...
- Check back through the clusters for what contacts were made last cycle. Again, look for trends.
- Keep the cluster going on a spare monitor during the cycle peaks. This way you can keep an eye on where everyone spreads out during pile ups and alerts you to that rare country you might be chasing.
- Use an external speaker and high quality headphones when working DX. Internal speakers are a poor excuse for missing contacts.
- If you can't spend the time sitting at the ready position in front of the radio, remote the audio to your handheld and continue with other duties. I've done the lawn numerous times with a handheld in my pocket and headphones on!
- Entertain the thought of going portable on your next outing/holiday, that's how I bagged Western Samoa.

I've received requests for information of where to listen to assist newcomers to 6 m. Below is a list of Australian, New Zealand and New Caledonian 6 m beacons that are presently operational and most likely to be heard at this point of the Sunspot cycle.

Australia

Frequency	Callsign	Location	Grid locator	Mode
50.046	VK8RAS	Alice Springs	PG66wf	CW
50.057	VK7RAE	NW Tasmania	QE38du	CW
50.058	VK4RGG	Gold Coast	QG62qa	CW
50.066	VK6RPH	Perth	OF88aa	CW
50.087	VK4RTL	Townsville	QH30jp	CW
50.288	VK2RHV	Hunter Valley	QF57sc	CW
50.289	VK2RSY	Sydney	QF56mh	CW
50.293	VK3RMV	Wannon	QF02wh	CW
50.297	VK7RST	Hobart	QE37pb	FSK
50.304	VK6RSX	Dampier	OG89ii	CW
50.306	VK6RBU	Bunbury	OF76wr	CW
50.310	VK8VF	Darwin	PH57kn	CW
50.315	VK5RBV	Barossa Valley	PF95mk	CW
50.345	VK4ABP	Longreach	QG26dn	CW
52.438	VK3FGN	Mildura	QF15ct	CW

New Zealand

50.040	ZL3SIX	Christchurch	RE66ej	CW
50.043	ZL1VHF	Auckland	RF73	CW
51.030	ZL2MBH	Napier	RF80	FSK
52.275	ZL2MHF	Upper Hutt	RE78ns	FSK
52.490	ZL2SIX	Blenheim	RE68	FSK

New Caledonia

50.080	FK8SIX	Noumea	RG37ft	FSK
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There are other beacons either planned or not operating at present and I will advise of any updates. If your equipment has the capabilities, it is worth programming the above frequencies into memories and regularly scanning them, it is surprising how often you will find the band opens and you hear a beacon. It is also useful to listen for Channel 0 TV, in particular, Toowoomba sound on 51.672 and Wagga sound on 51.740. The International call frequency is 50.110 and the Australian calling frequency 50.200 with most SSB operation taking place between 50.110 and 50.200. For more information check the Australian Amateur Callbook.

Hopefully 6 m will start coming to life during September.

Please send any 6 m information to Brian VK5BC at bceland@picknowl.com.au.

ar

Plan Ahead

The Mid North Coast Radio Expo 2008

When: Sunday Jan 20th

Where: St Johns Church Hall,
Mc Lean Street, Coffs Harbour

Time: 8.30am start

Trade displays, disposals, club displays, home brew
and more

Info at www.mncarg.org or call Gary VK2ZKT on
02 6655 2990

James Barber Webster VK2BZD (Jim)

It is with deep regret that we record the sudden passing of James Barber Webster VK2BZD at Port Macquarie on Monday 20th August 2007. He was known as Jim to his many friends. Jim was in his 85th year.

Jim was born in Merewether, the son of George Ernest Barber Webster. George was an engineer in the Army. During his formative years Jim's family moved from Waratah, where George had built a house, to Duntroon, then to Victoria Barracks at Paddington. This was followed by two years in Brisbane before the family moved back to Sydney where George built another house in Kingsford in 1939.

While his parents were in Brisbane, Jim stayed with his aunt in Newcastle to complete his last two years of school at Newcastle Boys High where he was a prefect.

Jim majored in physics at the University of Sydney where he completed a Science degree in 1941. He was a member of the University Regiment where he helped as he could with the war effort but could not enlist on graduation because he was automatically drafted into munitions and worked on optics. It was while he was doing this work through the university that Jim met Mary whom he married

in 1948.

After the war Jim became a teacher. Following country postings to Grenfell and Gilgandra, he returned to Sydney as a Science teacher at Homebush High and Master at Birrong Boys High School. In retirement Jim and his wife Mary settled in Port Macquarie where their son Paul VK2BZC and daughter-in-law had earlier moved to practice medicine.

Jim had a deep interest in all things scientific. He was very practical and had craftsman skills in both metal and wood. He particularly enjoyed metal turning on his lathe.

Amateur Radio played a very important part in Jim's life. In Sydney he was very active in the Youth Radio Scheme and ran a radio club at Birrong Boys High School. He supported the St George Amateur Radio Society as well as the WIA. He was an active WICEN member and participated in emergency communications for disasters such as the Royal National Park bushfires and the Newcastle earthquake. He could always be counted on to participate in WICEN training exercises such as the City to Surf and the Hawkesbury Canoe Classic. Jim's preparedness and professional approach to communications always set a high standard.

When he came to Port Macquarie Jim enthusiastically participated in the activities of the Oxley Region Amateur Radio Club. He rarely missed a meeting and was always first to volunteer to assist with tasks. He participated in the portable operation of the club station VK2BOR at the Tacking Point Lighthouse only two days before passing away.

Jim will always be remembered for his willingness to help others. He was always respected for his reliability and his unassuming manner of so freely sharing his vast knowledge.

Jim's funeral service was held on Friday 24th August 2007 in the chapel of the Port Macquarie Crematorium. His son Paul VK2BZC delivered a heartfelt eulogy.

This Silent Key has been compiled from the eulogy which Paul so kindly provided. Thank you, Paul.

Deepest sympathy is extended to Jim's wife Mary, and to all his family in their sad loss.

Vale: James Barber Webster VK2BZD (Jim)

Submitted by Henry Lundell VK2ZHE
on behalf of the Oxley Region Amateur
Radio Club Inc.

Sir Angus Tait ZL3NL

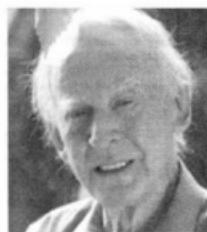
Staff at Christchurch radio communications company, Tait Electronics Limited, are mourning the loss of their founder and Chairman Sir Angus Tait ZL3NL, who died at Windermere Lifestyle Care and Village on 7 August, 2007.

Sir Angus founded the highly successful radio communications company, Tait Electronics in the late 1960s, and at the time of his passing the company provided employment for over 850 people, and was trading successfully in well over 100 countries.

Sir Angus never knew his father, who died shortly before he was born. He first

flirted with electronics when he was 13, and a student at Waitaki Boys High School in Oamaru. When 17 he convinced his mother to let him leave school to take a job at a local radio shop.

During his life he survived one of New



Zealand's worst ferry disasters, spent six years in the RNZAF representing his country in World War II, and indeed had overcome bankruptcy before starting Tait Electronics.

Always a radio enthusiast (with the call ZL3NL), Sir Angus kept up to date with the latest technologies. Until the end at 88, he drove into work in his characteristic red Alfa Romeo, parking his car right by the front door, rather than in a parking space – after all, it was his name on the office door.

(Photo: Tait Electronics)

Hamads classifieds

FREE

FOR SALE NSW

-AR8 wartime comm rx in good working order, converted to 240 V ac. Offers wanted. Brian mnleech@bigpond.com

-The OZI-POLE portable dipole kit complete and ready to assemble. Covers 40 - 6 metre bands and is ideal for balcony use, clamped to a picnic table or pedestrian mobile use. Quite a few now in use, see website. We are hoping to fund a new repeater with the proceeds. A great build-it-yourself project you can be proud of from the M.N.C.A.R.G. Inc. P.O.Box 505 Bellington NSW 2454. Visit <http://www.mncarg.org/> or email mncarg@yahoo.com.au Price \$99 + post.

-Tower 21 metre, wind-up, tilt-over, with guys, cables and 2 winches, collapses to 6 metre sections (fits on a large car roof-rack!) Triangular section, well galvanised steel - no rust! \$400 o.n.o. Location - Sydney, ready to take away. Bob VK2CAN 02 9416 3727.

-Tower "HILLS" galv. two sections each 7.6 m long, wind up and tilt over design with top bearing fitted, all hardware and guy wires in stainless steel, built-in platform for rotator fitted. All in good condition. Phone Manfred VK2RV, QTHR Phone: 02 4938 1560 Mobile: 0418 210 457.

WANTED NSW

-Manual and/or circuit diagram for a BWD Portascope Model 321 oscilloscope. Eric Shaw VK2KCO, 02 6652 3495 or erickshaw@bigpond.com

FOR SALE VIC

-GME TX-3400 remote-head 40 channel UHF CB transceiver, with GME SPK04 speaker, GME mobile aerial, mounting brackets and instruction manual. \$350.00 - negotiable. Pair of UNIDEN UH-040XR 500 mW portable 40-channel two-way UHF CB radios, each with DSE speaker mic and operation guide. \$95.00 each - negotiable. REALISTIC PRO-2015 50-channel, 29-54 MHz, 137-174 MHz & 380-512 MHz scanner, with telescopic aerial, mains adaptor and instruction

manual. \$100.00 - negotiable. UNIDEN UBCT8 TRUNK TRACKER III 250-channel, 25-512 MHz & 806-1300 MHz scanner, with telescopic aerial, mains adaptor, instruction manual and UNIDEN Australian Scanner Frequencies CD. \$300.00 negotiable. SANGEAN ATS909 FM, LW, MW & SW AM/SSB receiver (306 memory channels and SSB tuning to 40 Hz steps via fine tuning), with SANGEAN ANT-60 portable SW antenna, carry case, mains adaptor, instruction manual and RADIO SHACK (Cat No 20-280) amplified SW 3-30 MHz antenna. \$300.00 - negotiable. Colin VK3GMR QTHR (Berwick). Phone 03 9707 3110 or email colin@eptech.com.au.

-Quad antenna, 2 element for HF bands, 20 m, 17 m, 15 m, 12 m, 10 m. Feed with one coax cable, USA made, 8 dB gain. Front to back 25-30 dB. Boom length 13 feet. Spreader, 8 fibreglass. Non-stretch wire. Transformer 1-1. Turning radius 11 feet. Instruction book. Weight about 33 lbs. John Fleming, 9 Queen St Wonthaggi 3995 VK3FJ Phone 03 5672 2722

FOR SALE QLD

-One MFJ1296 all mode interface, new condition, never been used. Can be used to suit any tx/rx. Also 20m mobile whip made by Mobile 1, good condition. 80 m mobile 3 whip, good condition. Contact VK4DV email vk4dv@yahoo.com.au phone 07 4928 5537 (best at night)

WANTED QLD

-DENTRON MLA2500 linear amp. either working or not, preferably later. VK4DV email vk4dv@yahoo.com.au best at night or phone 07 4928 5537

FOR SALE VK5

-11.5 m 300 ohm h/duty cable, 10 m 450 ohm ladder line, 11.5 m 450 ohm ladder line, 6 m BELDEN RG-58 AU coax with plugs on ends. All cable and ladder line new sell the lot \$60.00 plus postage Murray VK5BVJ QTHR Phone 08 8723 1001

About hamads....

- Submit by email (preferred) or on the form on the reverse of your current Amateur Radio address flyer sheet. Please print carefully and clearly, use upper AND lower case.
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- WIA policy recommends that the serial number of all equipment for sale should be included.

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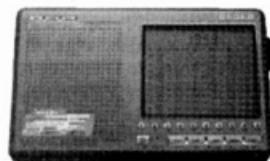
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Classes of Output Stages and Drew Diamond's Class E 160 m AM Tx

At the outset let me say I am a great fan of Drew Diamond's projects. I have purchased some of his books and I have met him personally at the Ballarat Convention held in the Wool Shed. I like his simple and practical approach to design.

During the course of our Wednesday night Club net a week ago, Malcolm MacFarlane VK3JPS raised discussion about Class E operation as described by Drew Diamond in the recent AR article.

Now personally, I had never heard of a Class E output stage, nor had any of the others on the net at that time. I thought I knew about Class A, B and C modes of operation from my reading of magazines, particularly Neville Williams in Electronics Australia, and articles in Silicon Chip etc also from my Electrical Engineering studies at Footscray Tech, back in the '60's. So you can see I am well and truly out of date.

My understanding of Class C operation

is where the valve, transistor, or active device was biased into a cut off condition and driven heavily by the input signal so that the output became a series of heavy current or voltage bursts. These in turn are applied to a tuned, or tank circuit which acts as a fly wheel and converts the pulses into a sinewave output.

A Class C amplifier was thus, non linear and highly distorting, with the driven tuned circuit providing the fill-in voltage and current as well as the necessary harmonic filtering.

I had even heard of Class D operation, where the input signal acted in such a way as to provide pulse width modulation. The stream of pulses would vary in width and thus the energy per pulse was controlled. Amplifiers using this mode of operation were used to control variable speed motors so that the stream of pulses was turned into controlled rotational energy. This type of amplifier has also been used for driving subwoofers.

However, as far as I could see, I

could not imagine what other kind of permutation was possible to be called Class E operation.

It was only when John VK3TCT, who was part of the discussion, actually decided to "Google" Class E operation that we found it was for "real". So I guess I owe Drew an apology for even thinking that it was either a typographical error or that he was just plain wrong.

We also noted that Drew's circuit actually used "plate" or more correctly "drain" modulation to provide the required AM modulation.

This got me to thinking what might have been achieved if a Class D drive had been used to excite the final tank circuit. Might it not be possible to achieve AM modulation by using a "PIC" to generate a variable pulse width train to drive the tank circuit in sympathy with the audio input? With a bit of luck one chip could be used to generate the pulse width drive over the limited audio range and directly drive the output semi conductor. Possibly the high tension supply might have to be increased to provide the same power output, as plate modulation would no longer be required.

A further crazy thought could be that with a little digital wizardry it might even be possible via a balanced output stage to come up with an SSB transmitter with this kind of configuration.

I would very much like to see a follow up "forum" type article in AR discussing the various new classes of operation. It might even be possible to extend this so that other contributors could throw in ideas and circuit diagrams to provide variations to make Drew's circuit even more versatile.

This could be highly educational, bring us old timers up to date and provide excellent technical matter for the AR magazine. Apart from anything else it could just be bloody interesting for all of us.

Max Brighton VK3ZMT

Editor's note: I would welcome an article as outlined by Max. See the note on the WIA web site on how to write for AR: <http://www.wia.org.au/armag/How%20to%20write%20for%20AR%20magazine.pdf>

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VK1 VK1WIA: Sundays at 11.00 am 7.128, 146.950, 438.050. Canberra Region Amateur Radio Club Email newsletter will be sent on request to president@vk1.ampr.org

VK2 VK2WI: Sunday 1000 and 1930 hours local. 1.845; 3.595; 7.146; 10.125; 14.170; 28.320, 52.525; 145.600; 147.000; 438.525; 1273.500 MHz. Plus regional relays. 5423.5 kHz (morning) VK1WIA news included in the morning

VK3 VK1WIA: Sunday 10.30 am and 8 pm, 3.615 and 7.085 (LSB), 10.130 (USB), VK3RML 146.700, VK3RMM 147.250, VK3RMU 438.075

VK4 VK1WIA: Sunday 9.00 am via HF and major VHF/UHF repeaters

VK5 VK5WI: 0900 hrs local time. 1.843 LSB, 3.550 LSB, 7.140 LSB, 28.470 USB, 53.1 AM, 147.000 FM Adelaide, 146.900 FM South East, 146.925 FM Central North, 439.975 FM Adelaide North

VK6 VK6WIA: 146.700 FM(R) Perth at 0930 hrs Sunday relayed on 1.865, 3.564, 7.075, 10.125, 14.116, 14.175, 21.185, 29.120 FM, 50.150 and 438.525 MHz. Country relays 3.582 and on major repeaters. Broadcast repeated at 1900 hrs Sunday on 1.865, 3.564, 146.700 and 438.525 MHz; country relays on major repeaters. Also in "Realaudio" format from the VK6 WIA website

VK7 VK1WIA: Sunday 9 am on VK7WI network: 1.840 AM, 3.570 MHz LSB and on major repeaters. Followed at 9:30 am with VK7 Regional News Broadcast also on 7.090 LSB, 14.130 USB and on major repeaters

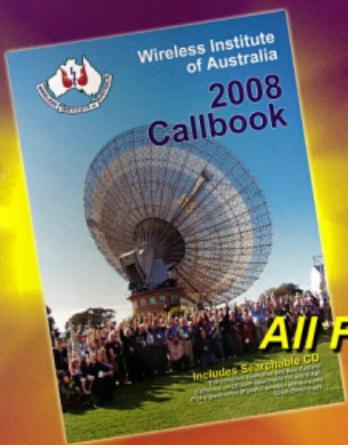
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